DOCUMENT RESUME

ED 081 362 HE 004 530

AUTHOR	Carroll, Robert L.; And Others
TITLE	University-Community Tension and Urban Campus Form. Volume 1.
INSTITUTION	Cincinnati Univ., Ohio.
SPONS AGENCY	Educational Facilities Labs., Inc., New York, N.Y.
PUB DATE	Oct 72
NOTE	125p.; For access to volume 2, containing maps of university buildings and lands, contact: The Clearinghouse for Higher Education, One Dupont Circle, Washington, D.C. 20036
EDRS PRICE	MF-$0.65 HC-$6.58
DESCRIPTORS	City Planning; Educational Administration; *Educational Planning; *Higher Education; Institutional Role; *Public Relations; *School Community Relationship; Urban Areas; Urbanization; *Urban Universities

ABSTRACT

This research study was undertaken to elucidate the conflicts between urban universities and their neighbors that are related to the form of the university proper, and the university district. The effects of the university campus on the neighboring community and the ways in which the two interact must both be considered aspects of institutional form. Institutional form in this study is taken to mean not only the layout of buildings, but also the spatial distribution of university activities. Volume one contains a survey of the experiences of 102 urban universities with their surrounding communities. The survey provided evidence that the two factors that contribute the most university-community tension are size of the university and the city, and the distribution of the activities in the university district of the city. The second part contains a detailed investigation of the experiences of Boston University, Temple University, and the University of Cincinnati. It was discovered that in each university tension resulted from campus expansion. Appendices include the questionnaire and survey samples, case study data sources, and the bibliography. Volume two of this report, containing a map series on the universities including diagrams of university parking, populations, land use, and crime statistics, is available upon request. (Author/PG)

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University-Community Tension and Urban Campus Form

Volume 1

Robert L. Carroll - Hayden B. May - Samuel V. Noe, Jr.

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University-Community Tension and Urban Campus Form

Volume 1

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October 1972

Introduction

In the fall of 1970 we proposed to Educational Facilities Laboratories a study of the effects of campus form on university-community relations. In our proposal we stated:

> "Conflicts between urban universities and their neighbors have become more severe and more common. Often the issues are physical expansion of the campus, or the effect of university activities on surrounding areas. The recent struggles over expansion at Columbia and Harvard are unusual only in intensity."

We believe that many of these conflicts relate to the physical form of the university proper, and the university district. Like the city, the university has its 'suburbs'. Where there is little functional interaction; where the university stands as an alien symbol; where there is competition for scarce space; or where unilateral planning is practiced - conflicts can develop. The effects of the university's expansion on the neighboring community and the ways in which the two interact must both be considered as aspects of institutional form. In order for universities and communities to plan wisely, it is imperative that they understand these effects.

We also stated in our original proposal that the study has two purposes:

> "To determine specific effects of campus form on university-community relations. And to prepare guidelines for institutional growth which will permit more harmonious development."

Since writing these words two years ago we have learned a great deal about university-community tensions and the spatial (and a-spatial) factors which are related to them. We now appreciate more fully that the goal of "harmonious development" of the university and surrounding neighborhoods can be interpreted differently. Harmony may be a short-range or a long-range objective. It may very well be that universities seeking to be more "open" will do so at the cost of increased tensions of various sorts. Tension frequently accompanies change - even beneficial change. Other institutions may feel, however, that higher levels of tension with surrounding communities adversely affect their mission. Consequently our second goal has been modified. The conclusions of this investigation are not presented in the form of unqualified guidelines. Instead they are statements which are useful only when considered in the context of a particular university's goals. We hope the reader will bear this in mind.

This report describes spatial characteristics of universities that explain (in part) differences in levels of town-gown conflict. The conclusions are drawn from a survey of 102 urban universities as well as detailed investigation of the experiences of three institutions over the past twenty years.

The phase of the project described in this report was preceded by a pilot study completed in April 1971. Most of the data for the University of Cincinnati was assembled in the course of the pilot study, which was used to develop the project methodology.

Acknowledgements

We would like to express our sincere gratitude to Educational Facilities Laboratories for the opportunity to extend our ideas about the effects of university form. We are obviously grateful for EFL's financial support. But more than that, we greatly appreciate the valuable suggestions and criticisms from Alan Green, EFL's Secretary/Treasurer.

Many others have given us help. To mention only a few: William Jenike, Richard Baker and Daniel Pinger of the University of Cincinnati; John McKevitt, Marvin Gerstein, Jahan Shiekholeslami and Dolores Thomas of Temple University; Gladys Hardy, Peter Van Aken, Kay Hansen, Blakeslee Shirey and Charles Woodman of Boston University; and John Telfer of SCUP. They and their colleagues have made our work far easier. So have the many others we have interviewed and those who responded to our questionnaires.

The group conducting the study consisted of the authors; Mark Barnard, Gary Jursik and Mark Permar, student assistants; Suzanne Steinmetz of Temple and Ellen Russell of Boston University; and Peggy Clark, secretary.

Following completion of the pilot study, EFL invited a number of university planners to review our work at a meeting in New York on July 17, 1971. The comments and suggestions offered at that meeting and in subsequent exchanges have been extremely valuable. Those assisting in this way were: Georgia Davis of American City Corporation, Columbia, Maryland; Richard Dober of Dober & Associates, Boston; Ira S. Fink of the University of California; Naphtali Knox, formerly of the University of Chicago; Kermit C. Parsons of Cornell; Jeremy Wilson and Jim Hotaling of Northwestern, and Fred Mayer of the University of Michigan.

In our description of the three case-study universities we have drawn together many facts and opinions. Where we discovered disagreements or controversies, we found no villains and no saints - only honest persons with honest views resulting from their personal circumstances, experiences and their roles. We have tried to present an accurate record and an objective interpretation of the events we described. Out of respect for those involved, we hope we have been successul.

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Map Series

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4 University Owned Land and Buildings
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1: Methodology

The goal of the project is to help universities determine appropriate decisions concerning changes in the spatial distribution of activities and structures within their district which affect university-community relations.

In order to do this it has been necessary to:

1. Determine the most common manifestations of university-community tension.

2. Examine these manifestations relative to five other phenomena (see hypotheses) which may help explain them. One of these phenomena is the spatial distribution of activities and structures in the university district.

3. Determine, through case-studies, which decisions concerning the spatial distribution of activities and structures have tended to improve relations and which have caused them to deteriorate.

The following assumptions have been made:

1. Communities are comprised of many interdependent parts. Residential neighborhoods, commercial clusters and universities are examples of such parts.

2. A change in one part of the community will effect a change in others. This is particularly noticeable within a university district.[1]

3. The larger the community and the larger and more numerous its parts, the greater the difficulty in coordinating and integrating the parts.

4. To the extent that coordination is absent, changes in any part of the community may be perceived as a threat to other affected parts. This may trigger competition for scarce resources.

5. The more open the sub-system (parts) of a community, the greater the likelihood of challenge and threat from outside the sub-system. Universities and residential neighborhoods are extremely open sub-systems.

6. The conditions described in statements 3-5 above have, in some urban communities, developed to such an extent that a general milieu of tension pervades to varying degrees the entire community. Manifestations of this condition are numerous and diverse. University districts in such communities are seldom immune from this condition.

HYPOTHESES

The following phenomena within a university district are strongly related to university-community tension.

1. University-community tensions vary with the size of the university and the size of the urban community.

2. University-community tensions vary with the size of identifiable population groups in the university district whose interests are generally not served by the university.

3. University-community tensions vary with the balance of power between the institution and other groups within the district.

4. University-community tensions vary with the rate of change in activities or proposed activities (policies) of the institution or other groups in the district. (See Assumptions 2 and 4).

5. University-community tensions vary with the distribution in space of the activities and structures of the institution and other groups in the district.

Although this project is primarily concerned with the last of these phenomena, it is also necessary to examine the others in order to separate their effects.

PROCEDURES: QUESTIONNAIRE

These presumed relationships have been documented both through a questionnaire mailed to a large sample of universities (an extension of work in Phase I of the project), and through three case-studies. The case studies are used to shed further light on the evidence provided by the survey, as well to examine over a twenty year period the decisions leading to better or worse relations.

The questionnaire gauges:

1. Size of the institution by:

   - enrollment
   - land area

   Size of the community by:

   - metropolitan population

2. Identifiable groups in the district with interests generally not served by the university by:

   - the percentage of district population which is black
   - the percentage of district population of low income

3. Imbalance of power by:

   - estimated frequency of incidents when community groups were able to interfere with some action intended by the university.
   - estimated frequency of incidents when the municipality was able to interfere with some action intended by the university.

4. Rate of change of activity by:

   - rate of university growth (enrollment and land area)
   - rate of district population change (race and income)

5. Spatial distribution of activities and structures by:

   - dispersion of the university in its district (determined by respondents checking diagrams)
   - proportion of students living off-campus, but in the district.
   - distance of the campus from the city center.

In the questionnaire the institutions were asked the extent of university-community tension they have experienced and the nature of the tension according to the categories to be used in the case-studies (see below).

PROCEDURES: CASE-STUDIES

In the case-studies the following information is required:

1. Size of the institution by:

   - enrollment
   - faculty size
   - degrees awarded
   - number of academic departments
   - gross building area
   - land area

   Size of the community by:

   - metropolitan population

2. Identifiable groups in the district whose interests are generally not represented by the university by the following characteristics of population in the district:

   - race
   - education level
   - income
   - occupational classification
   - age

   All data is taken from the 1950, 1960 and 1970 censuses. The assumption is that each of these categories is a partial index of a cultural picture which indicates the degree to which the population is likely to value the university or derive benefit from it. All data have been mapped.

3. Imbalance of power

   The objective is to measure the relative power of the university and the aggregate of community organizations in the district (each vis-a-vis the other, and each vis-a-vis the municipality). The questions asked of the university are:

   - Are you a public or private institution?
   - Do you have power of eminent domain?

   For the community the following is needed:

   - Is there ward political representation?
   - If so, where are the boundaries and who is the representative? What are his concerns?
   - What community organizations exist in the district? (Neighborhood associations, block clubs, merchants' groups, etc.) How big are they? What areas do they serve? What are their objectives? What are their resources?

- What leaders of the organizations are active in city politics? Are key city leaders or bureaucrats sensitive to these groups?

For all interests in the district:

- How has each group fared over the past years in controversies between university and community?
- Has any group had a hand in thwarting the objectives of another (in university-community controversies)?

In gathering this data university officials, community leaders and city officials were interviewed.

4. Rate of change in activities or policies

Over the 20 year period the following university characteristics will be recorded:

- the rate of enrollment growth
- the rate of faculty and staff growth
- the rate of land acquisition
- the rate of building construction
- the relative intensity of academic and physical planning
- the rate of inauguration of new programs
- changes in housing policy, admissions policy, fees
- changes in relative numbers of bachelors, masters, and doctoral degrees awarded
- changes in sources of income

For others in the district

- changes in population size and characteristics (see Item 2 above), residential density
- changes in land use
- relative intensity of planning and renewal activity
- changes in the number and size of community organizations

5. Distribution in space of activities and structures will be measured by:

- amount and distribution of parking
- distribution of student and faculty residences in the district
- patterns of university retail patronage
- physical barriers to movement, expansion and contact
- land and building use
- dispersion of university land holdings and buildings
- intensity (size and scale) of building
- edge character of the campus

In testing the five hypotheses an operational definition of "tension" was employed by equating it with describable indicators of adverse effects of universities and surrounding groups on each other. These effects can be itemized as follows:

Housing:

- increases in residential density
- housing deterioration
- increases in housing cost
- diminution of housing stock

Parking:

- increases in parking demand

Commerce:

- loss of retail business
- unwelcome changes in market orientation of retail businesses

Inter-personal tensions:

- increases in crime rates
- significant numbers of complaints received by the university
- university-community controversies recorded in news reports or detailed by university officials, student leaders and community leaders

PRODUCTS OF THE RESEARCH

In testing the first four hypotheses it has been possible to predict those non-physical conditions under which universities might expect to experience tensions with their neighbors. Given this environment, the analysis of data relative to hypothesis five can help university planners understand the additional tensions which relate to physical factors. Moreover the case studies document the kinds of decisions regarding physical development which led to improved or deteriorated relationships. Of particular interest are such questions as: "Does a dispersed campus offer better or worse chances for harmonious relations?" Does a university with a strong physical image have more problems?" "Do students living in nearby apartments aggravate or dampen tensions?"

Conclusions have been drawn on all of the above which can be of use to other universities. Recommendations to the University of Cincinnati, Boston University and Temple University are far more specific and have been communicated privately to each institution.

The methodology itself is also a product. This report includes a set of procedures which other universities might employ to better understand their own districts and the ways in which they and their neighbors affect each other.

2: Survey: The Experience of 102 Urban Universities

The drastic changes and upheavals in modern urban society were overtly and dramatically exhibited by the university student movement in the United States in the late 1960's. Student demonstrations and riots closed many U.S. Universities in 1969 and 1970. University administrators, planners, and social scientists have directed a great deal of attention to the analysis of these events.

One class of events which has received little attention is that of the existing relationships between the university and its rather immediate community. The least explored aspect of university-community relations seems to be that of the spatial structure of the university and its surrounding territory. Changes in the distribution of activities within the university and it's immediate surroundings probably influence university-community relations, but little evidence is available.

This study investigates several manifestations of university-community tension. The five hypotheses previously stated are tested, utilizing data gathered from the mail questionnaire of universities in the United States.[1] The questionnaire can be found in Appendix A.

Because this study focuses on physical and spatial aspects of the university and the community, many important and fascinating dimensions of the problem had to be neglected. The changing cultural climate of the nation, of student ideology, of social movement (e.g. the rise of the Black Power movement) and of national issues such as the Vietnam War and the draft are not directly analyzed. The reader may, however, imagine from statements regarding the relationship of spatial factors to university-community tensions what effects other types of variables might have on these tensions.

The universities canvassed were asked to indicate, during the past twenty years, the level of tension with their neighbors. Twenty percent reported frequent or severe tensions, 59% reported rare tension and 21% none. The geographical distribution of universities making these responses are shown in Map G-1. Not surprisingly the concentrations of institutions with high levels of tension are in the northeastern cities and in California. Many of those reporting no tension are southern institutions. These patterns seem to confirm the researchers' assumption that a general milieu of tension pervades large, complex and rapidly changing communities. Institutions located in more tranquil environments may derive from the survey data an indication of future conditions as they and their cities grow.

In analyzing the completed questionnaire, two aspects of university-community tensions have been measured. The first aspect scales the response of university administrators to the question, "Has your university experienced tensions with neighboring residents during the past twenty years?" Tables throughout this report that describe this aspect of tension will be entitled "Frequency of University-Community Tensions."[2] Map G-1 indicates the geographic distribution of the universities according to the levels of tension they reported.

In contrast, the second aspect scales changes in tension producing phenomena in the surrounding community. It is important to remember that these responses are university administrators' impressions of change in the community rather than actual quantifiable change.[3] Tables throughout this report that use this aspect of tension will be entitled "Levels of Tension-Producing Change in the Community."

Frequent or Severe Tension

Rare Tension

No Tension

Locations and Tension Levels
at Universities Surveyed

In the subsequent analyses of the five hypotheses, it is important to note the similarities and differences between these two aspects.

HYPOTHESIS I

University-community tensions vary with the size of the university[4] and the size of the urban community.[5]

Large metropolitan areas have been described as being more prone to social tensions and physical stress. Even though the relationship is not overwhelming, it is evident, as in Table 1, that large metropolises are more likely to house frequent and severe university tensions than are small metropolises.

TABLE 1

SMSA Size in Relation to Frequency of University-Community Tension

SMSA Population	Universities Reporting: Frequent or Severe Tension	Rare Tension	No Tension
over 1,700,000	31%	52%	17%
900,000 - 1,700,000	19%	75%	6%
under 900,000	12%	59%	29%

Table 2 indicates that university enrollment is also positively related to university-community tension. Forty-seven percent of the high enrollment schools experience frequent and severe tension whereas only fifteen percent of the low enrollment schools exhibit this tension.

TABLE 2

University Enrollment in Relation to Frequency of University-Community Tension

University Enrollment	Universities Reporting: Frequent or Severe Tension	Rare Tension	No Tension
over 25,000	47%	47%	6%
15,000 - 25,000	17%	66%	17%
under 15,000	15%	60%	25%

The two size measures (enrollment and metropolitan population) combined exhibit a strong relationship with tension. Large universities in large metropolitan areas have the highest incidence of frequent and severe tensions (See Table 3).

Large metropolitan population size and large enrollment are also expected to exacerbate tension-producing occurances in the immediate environs of the university. When the university administrators' impressions of the tension-producing changes in the surrounding community are examined, one finds that schools with large enrollments are more likely to be in neighborhoods exhibiting greater tension than those with small enrollment (See Table 4). The relationship between SMSA population size and tension-producing activities is practically non-existent, however, as shown in Table 5.

TABLE 3

University Enrollment and SMSA Size in Relation to Frequency of University-Community Tension

University Enrollment	High SMSA Population			Medium SMSA Population			Low SMSA Population		
	F or S	R	N	F or S	R	N	F or S	R	S
over 25,000	80%	20%	0%	25%	75%	0%	33%	50%	17%
15,000 - 25,000	38%	62%	0%	50%	50%	0%	5%	69%	26%
under 15,000	19%	57%	24%	10%	80%	10%	12%	55%	33%

F or S = Universities reporting frequent or severe tension

R = Universities reporting rare tension

N = Universities reporting no tension

TABLE 4

University Enrollment in Relation to Levels of Tension-Producing Change in the Community

Universities Reporting:

University Enrollment	High Level of Change	Medium Level of Change	Low Level of Change
over 25,000	58%	21%	21%
15,000 - 25,000	17%	39%	44%
under 15,000	28%	41%	31%

TABLE 5

SMSA Size in Relation to Levels of Tension-Producing Change in the Community

Universities Reporting:

SMSA Population	High Level of Change	Medium Level of Change	Low Level of Change
over 1,700,000	29%	24%	47%
900,000 - 1,700,000	49%	45%	6%
under 900,000	21%	43%	37%

University size as measured by enrollment is clearly related to the levels of tension reported. At the same time no correlation at all was found between tension and campus land area - the other measure of university size investigated.

HYPOTHESIS II

University-community tensions vary with the size of identifiable population groups in the university district whose interests are generally not served by the university.

It is generally believed that the universities' interests do not meet or serve the interests of the poor and the racial minorities. This may be so. Data to check this assertion was not found. However, if one extends this idea, as was done in Hypothesis II, he may believe that university-community tensions would be greater if the population surrounding a university contains a high percent of poor[6] and/or minority people. The evidence is strikingly void of any such relationships. Indeed the data show an opposite, if slight, relationship than that expected (See Tables 6 and 7). The lower the percent of poor and/or black families in the neighborhood the greater the likelihood of tension.

It is important to note, however, that when the administrators' perceptions of tensions-producing change in the neighborhood were measured, it was much higher if the neighborhood had a high percent of poor and/or black families residing there.

These may well be some of the most remarkable findings of the research. It should definitely cause university administrators and planners to change some of their conceptions. These findings also indicate that further research into this lack of relationship would be fruitful.

TABLE 6

THE PERCENTAGE OF LOW INCOME FAMILIES IN SURROUNDING COMMUNITIES:

In Relation to Frequency of University-Community Tension

% Low Income Families	Universities Reporting: Frequent or Severe Tension	Rare Tension	No Tension
over 15%	4%	76%	20%
5% - 15%	30%	59%	11%
under 5%	31%	46%	23%

In Relation to Levels of Tension-Producing Change in the Community

% Low Income Families	Universities Reporting: High Level of Change	Medium Level of Change	Low Level of Change
over 15%	52%	20%	28%
5% - 15%	26%	48%	26%
under 5%	12%	46%	42%

TABLE 7

THE PERCENTAGE OF MINORITY FAMILIES IN SURROUNDING COMMUNITIES:

In Relation to Frequency of University-Community Tension

Universities Reporting:

% Minority Families	Frequent or Severe Tension	Rare Tension	No Tension
over 20%	13%	64%	23%
5% - 20%	28%	54%	18%
under 5%	20%	57%	23%

In Relation to Levels of Tension-Producing Change in the Community

Universities Reporting:

% Minority Families	High Level of Change	Medium Level of Change	Low Level of Change
over 20%	52%	20%	28%
5% - 20%	26%	48%	26%
under 5%	12%	46%	42%

HYPOTHESIS III

University-community tensions vary with the balance of power between the university and other groups within the district.

The original intention of the study was to collect certain types of information which would allow a judgement regarding the ability of neighborhood groups and associations to organize and thus attempt to "ward off" perceived threats to their livelihood. The data dealing with this issue was sparse indeed. However, one significant data item is the number of times that neighborhood groups mounted some successful action against the university.[8] These data may well be nothing more than another measure of university-community tension. Table 8 shows, however, that this measure is only slightly related to our previous measure of tension.

TABLE 8

The Number of University Actions Stopped by Local Groups in Relation to Frequency of University-Community Tension

Universities Reporting:

Actions Stopped	Frequent or Severe Tension	Rare Tension	No Tension
2 or more	57%	29%	14%
1	6%	88%	6%
0	9%	68%	23%

Tables 9 and 10 reinforce the findings reported for Hypothesis I. Universities with high enrollment and those located in large metropolitan areas are more likely to have actions stopped by the community than are smaller universities or those located in smaller metropolitan areas.

TABLE 9

University Enrollment in Relation to the Number of University Actions Stopped by Local Groups

Enrollment	Universities Reporting: 2 or More Actions Stopped	1 Action Stopped	No Actions Stopped
over 25,000	42%	8%	50%
15,000 - 25,000	20%	28%	52%
under 15,000	21%	17%	62%

TABLE 10

SMSA Size in Relation to the Number of University Actions Stopped by Local Groups

SMSA Population	Universities Reporting: 2 or More Actions Stopped	1 Action Stopped	No Actions Stopped
over 1,700,000	30%	24%	46%
900,000 - 1,700,000	14%	7%	79%
under 900,000	21%	19%	60%

Tables 11 and 12 indicate strongly that as more community organizations come into existence, tension is more likely.[9] This perception of tension may very well be an aspect of these community organizations "warding off" perceived threats from the University.

TABLE 11

Increase in the Number and Size of Community Organizations In Relation to Levels of Tension-Producing Change in the Community

	Universities Reporting: High Level of Change	Medium Level of Change	Low Level of Change
Considerable increase	28%	22%	50%
Slight increase	11 %	30%	59%
No increase	0%	31%	69%

TABLE 12

Increase in the Number and Size of Community Organizations In Relation to Frequency of University-Community Tension

	Universities Reporting:		
	Frequent or Severe Tension	Rare Tension	No Tension
Considerable increase	31%	53%	16%
Slight increase	20%	60%	20%
No increase	0%	69%	31%

HYPOTHESIS IV

University-community tensions vary with the rate of change of activities or proposed activities (policies) of the institution or other groups in the district.

Change is always accompanied by stress. This is true for social systems as well as automobile engines. As a community grows in population size many adjustments must be made by the various parts of the community. One result of these adjustments may be tension. Based on this, one would expect that as a university grows, tension may result between it and the surrounding community. Tables 13 and 14, however, show a slight reversal to this prediction. Communities exhibiting slow growth show a slightly higher probability of experiencing tension with the university than those exhibiting faster growth.[10] The same relationship is true for change in university enrollment.[11]

TABLE 13

METROPOLITAN POPULATION GROWTH:

In Relation to Frequency of University-Community Tension

SMSA Growth (1950-1970)	Universities Reporting: Frequent or Severe Tension	Rare Tension	No Tension
over 60%	17%	58%	25%
35% - 60%	17%	66%	17%
under 35%	26%	56%	18%

In Relation to Levels of Tension-Producing Change in the Community

SMSA Growth (1950-1970)	Universities Reporting: High Level of Change	Medium Level of Change	Low Level of Change
over 60%	26%	40%	34%
35% - 60%	35%	36%	29%
under 35%	27%	35%	38%

TABLE 14

CHANGE IN UNIVERSITY ENROLLMENT:

In Relation to Frequency of University-Community Tension

Universities Reporting:

% Enrollment Change (1950-1970)	Frequent or Severe Tension	Rare Tension	No Tension
over 200%	9%	66%	25%
80% - 200%	23%	60%	17%
under 80%	25%	59%	16%

In Relation to Levels of Tension-Producing Change in the Community

Universities Reporting:

% Enrollment Change (1950-1970)	High Level of Change	Medium Level of Change	Low Level of Change
over 200%	13%	45%	42%
80% - 200%	60%	25%	15%
under 80%	22%	37%	41%

In Tables 15 and 16 the two growth rates have been controlled for absolute size. It is interesting to note here that there is, in fact, a more predictable relationship with tension in large and medium size cities and universities. That is, tensions are rather clearly related to population change in large and medium size cities, and to enrollment change in large and medium size universities. This reinforces the previously discussed evidence of the importance of urban and university size.

TABLE 15

Metropolitan Population Growth in Relation to Frequency of University-Community Tension (Controlled for SMSA Population)

SMSA Growth (1950-1970)	High SMSA Population			Medium SMSA Population			Low SMSA Population		
	F or S	R	N	F or S	R	N	F or S	R	N
over 60%	50%	17%	33%	60%	0%	40%	56%	22%	22%
35% - 60%	19%	29%	52%	16%	21%	63%	58%	11%	32%
under 35%	22%	11%	67%	0%	0%	100%	67%	0%	33%

F or S = Universities reporting frequent or severe tension

R = Universities reporting rare tension

N = Universities reporting no tension

TABLE 16

Change in University Enrollment in Relation to Frequency of University-Community Tension (Controlled for University Enrollment)

% Enrollment Change (1950-1970)	High Enrollment			Medium Enrollment			Low Enrollment		
	F or S	R	N	F or S	R	N	F or S	R	N
over 200%	33%	33%	33%	57%	29%	14%	25%	13%	62%
80% - 200%	10%	57%	33%	28%	22%	50%	0%	16%	84%
under 80%	0%	57%	50%	20%	20%	60%	0%	0%	100%

F or S = Universities reporting frequent or severe tension

R = Universities reporting rare tension

N = Universities reporting no tension

It is important to note in passing that changes in metropolitan size are highly related to changes in university enrollment. This is consistent with one of the underlying assumptions of the study: that change in one part of the community will affect change in others.

TABLE 17

Change in University Enrollment
In Relation to Change in SMSA Population

Universities located in cities with the following Changes in SMSA Population:

% Enrollment Change (1950-1970)	Over 60%	35% - 60%	under 35%
over 200%	47%	37%	16%
80% - 200%	38%	38%	24%
under 80%	22%	12%	66%

Table 18 indicates that universities showing great growth in enrollment are located in small metropolitan areas. Perhaps this is because mature institutions which have reached sizes where growth is causing operational problems are more commonly found in larger cities.

TABLE 18

Change in University Enrollment
In Relation to 1960 SMSA Population

Universities Located in Cities of:

% Enrollment Change (1950-1970)	over 1,700,000	900,000 - 1,700,000	under 900,000
over 200%	19%	6%	75%
80% - 200%	17%	31%	52%
under 80%	63%	12%	25%

During the course of the study the authors held the distinct belief that one of the most important determinants of university-community tension is physical encroachment of the University into the neighborhood. The work on the case-studies seemed to provide ample evidence of this (See Chapter 3). Surprisingly, however, Tables 19 and 20 show that this is definitely not the case. No relationship emerges when land area expansion is contrasted with tension.[12] Even when controlling for total size of university land area no correlation appears.[13]

TABLE 19

CHANGE IN UNIVERSITY LAND AREA:

In Relation to Frequency of University-Community Tension

% Change in Land Area (1950-1970)	Universities Reporting: Frequent or Severe Tension	Rare Tension	No Tension
over 100%	17%	66%	17%
15% - 100%	17%	66%	17%
under 15%	17%	55%	28%

In Relation to Levels of Tension-Producing Change in the Community

% Change in Land Area (1950-1970)	Universities Reporting: High Level of Change	Medium Level of Change	Low Level of Change
over 100%	35%	34%	31%
15% - 100%	39%	36%	25%
under 15%	18%	38%	44%

TABLE 20

Change in University Land Area in Relation to Frequency of University-Community Tension (Controlled for Campus Size)

% Change in Land Area (1950-1970)	Campuses over 500 acres			Campuses 150-500 acres			Campuses under 150 acres		
	F or S	R	N	F or S	R	N	F or S	R	N
over 100%	20%	50%	30%	10%	70%	20%	22%	28%	0%
15% - 100%	33%	50%	17%	12%	75%	13%	0%	80%	20%
under 15%	0%	67%	33%	25%	37%	38%	25%	58%	17%

F or S = Universities reporting frequent or severe tension

R = Universities reporting rare tension

N = Universities reporting no tension

A final change variable considered significant is change in residential density in the surrounding neighborhoods. Table 21 details the findings in this case.[14]

TABLE 21

CHANGE IN RESIDENTIAL DENSITY:

In Relation to Frequency of University-Community Tension

Universities Reporting:

	Frequent or Severe Tension	Rare Tension	No Tension
Increase	20%	64%	16%
No change	0%	71%	29%
Decrease	26%	58%	16%

In Relation to Levels of Tension-Producing Change in the Community

Universities Reporting:

	High Level of Change	Medium Level of Change	Low Level of Change
Increase	26%	39%	35%
No Change	28%	43%	29%
Decrease	37%	26%	37%

This is the one instance where significant correlation between change and tension was found. Those universities where no change was perceived were less likely to experience tension than all others. Those experiencing a decline in nearby residential density were more likely to experience tension than those perceiving an increase.

The analysis thus far presented has suggested that the size of the university and the size of the community in which the university is located are positively related to university-community tensions. Surprisingly there was no direct correlation between tension and the proportion of poor or minority familes surrounding universities

Similarly, in the case of change in relation to tension we have seen significant correlation only with respect to residential density. These conclusions should play an important part in our discussion of spatial factors of both the community and the university as they relate to tension. The main focus in this study is on form, but one has to understand the effect of other factors before we can appreciate its effect. With this in mind the final hypothesis can be examined.

HYPOTHESIS V

University-community tensions vary with the distribution in space of the activities and structure of the institution and other groups in the district.

Communities vary in terms of their residential density and in terms of types of activities that are performed within them. Communities that exhibit more density than others should logically provide a milieu for the emergence of tension between them and the institutions they house. Moreover, the complexity of the relationships should be greater in high density areas. This in and of itself is a condition for tension. Furthermore, when a university is competing for space with highly intense activities such as those in a CBD, one would expect greater tension than when it is competing for space with low intensity activities.

The above prediction is borne out in Table 22 so far as density is concerned. High density areas are more likely to exhibit tension with a university than are low density areas.[15]

TALBE 22

RESIDENTIAL DENSITIES IN THE SURROUNDING DISTRICT:

In Relation to Frequency of University-Community Tension

Universities Reporting:

Density	Frequent or Severe Tension	Rare Tension	No Tension
High	33%	67%	0%
High-Medium	27%	64%	9%
Low-Medium	31%	57%	12%
Low	0%	86%	14%

In Relation to Levels of Tension-Producing Change In the Community

Universities Reporting:

Density	High Level of Change	Medium Level of Change	Low Level of Change
High	67%	33%	0%
High-Medium	40%	30%	30%
Low-Medium	48%	23%	29%
Low	17%	33%	50%

It is important to notice the strong relationship in Table 22 between the actual residential density of the neighborhood and the probability of tension-producing occurrences in the neighborhood.

The location of the university in the community is closely tied into the residential density syndrome. A university can experience low residential density rates far out in the suburbs, but also in or near the CBD. Indeed universities in or near the CBD experienced little tension as is shown in Table 23. Here one can see that those universities located in high density residential areas experience more tension than those located elsewhere in the city.

The form of the university is intriguing and interesting as a variable related to tension with the community. Form can be defined in a number of ways. For example by enrollment density. As shown in Table 24 those universities with high enrollment densities are more likely to experience tension with the community than those with low enrollment densities.[16]

Another form characteristic is the number of students residing in the district. When one views the relationship of the number of university students who live off-campus, but within 3/4 miles of the campus with "Frequency of University-Community Tension" it is apparent that a positive relationship exists.[17] (See Table 25). Controlling for the size of the metropolitan area shows that this relationship is high only for the small metropolitan areas. One supposes that students can be assimilated into the large SMSA with little trouble (See Table 26).

TABLE 23

University Location in Relation to Frequency of University-Community Tension

University Location	Universities Reporting: Frequent or Severe Tension	Rare Tension	No Tension
CBD	0%	0%	100%
Mixed land use areas near CBD	11%	89%	0%
High density residential areas	50%	50%	0%
Older low density residential areas	8%	67%	25%
Suburban residential areas	38%	50%	12%

TABLE 24

University Enrollment Density in Relation to Frequency of University-Community Tension

Enrollment Density (in students/acre)	Universities Reporting: Frequent or Severe Tension	Rare Tension	No Tension
over 80	24%	67%	9%
30 - 80	18%	62%	20%
under 30	19%	50%	31%

TABLE 25

Number of Students Living Within 3/4 Mile of Campus in Relation to Frequency of University-Community Tension

Number of Students	Universities Reporting: Frequent or Severe Tension	Rare Tension	No Tension
over 3,000	25%	66%	9%
700 - 3,000	19%	54%	27%
under 700	17%	59%	24%

Each university was asked to type itself in terms of physical form. These form types describe primarily the open or closed nature of the campus. At one extreme is the rigid, distinctly bounded superblock. At the opposite end is the university where buildings are distributed throughout a district devoted substantially to other activities.[18]

TABLE 26

Number of Students Living Within 3/4 Mile of Campus In Relation To Frequency of University-Community Tension (Controlled for SMSA Population)

Number of Students	High SMSA Population			Medium SMSA Population			Low SMSA Population		
	F or S	R	N	F or S	R	N	F or S	R	N
over 3,000	45%	45%	10%	0%	100%	0%	21%	69%	10%
700 - 3,000	30%	70%	0%	33%	33%	33%	8%	46%	46%
under 700	31%	54%	15%	0%	100%	0%	10%	40%	50%

F or S = Universities reporting frequent or severe tension

R = Universities reporting rare tension

N = Universities reporting no tension

Table 27 indicates that little relationship is evident between this variable and university-community tension. The tendency, though slight, is for the more open university to exhibit the most tension. This relationship was tested by serially controlling for other variables in the study. The effect of the controls did not change the relationship appreciably. None of the Tables (28 through 30) exhibited a tendency for closed forms to be related to high tension.

TABLE 27

Physical Form of the Campus in Relation to Frequency of University-Community Tension

	Universities Reporting:		
	Frequent or Severe Tension	Rare Tension	No Tension
Open form campus	19%	64%	17%
Closed form campus	20%	54%	26%

TABLE 28

Physical Form of the Campus in Relation to Frequency Of University-Community Tension (Controlled for Enrollment Density)

	High Enrollment Density			Medium Enrollment Density			Low Enrollment Density		
	F or S	R	N	F or S	R	N	F or S	R	N
Open form campus	22%	72%	6%	14%	67%	19%	20%	53%	27%
Closed form campus	22%	64%	14%	20%	60%	20%	20%	40%	40%

F or S = Universities reporting frequent or severe tension

R = Universities reporting rare tension

N = Universities reporting no tension

TABLE 29

Physical Form of the Campus in Relation to Frequency Of University-Community Tension (Controlled for SMSA Population)

	High SMSA Population			Medium SMSA Population			Low SMSA Population		
	F or S	R	N	F or S	R	N	F or S	R	N
Open form campus	33%	50%	17%	0%	100%	0%	12%	65%	23%
Closed form campus	25%	56%	19%	33%	50%	17%	11%	50%	39%

F or S = Universities reporting frequent or severe tension

R = Universities reporting rare tension

N = Universities reporting no tension

TABLE 30

Physical Form of the Campus in Relation to Frequency Of University-Community Tension (Controlled for % of Minority Families in Surrounding Communities)

	High % Minority Families			Medium % Minority Families			Low % Minority Families		
	F or S	R	N	F or S	R	N	F or S	R	N
Open form campus	16%	63%	21%	26%	58%	16%	8%	75%	17%
Closed form campus	0%	67%	33%	42%	42%	16%	24%	48%	28%

F or S = Universities reporting frequent or severe tension

R = Universities reporting rare tension

N = Universities reporting no tension

From the above data one can see that university form, when described in certain ways, is clearly related to university-community tension. However, these descriptors are not those which architects, campus planners and university administrators typically examine.

SUMMARY AND COMMENTS

It is probably true that the social determinants of university-community tension are more important than the physical ones. The processes and dynamics of personal interaction, of conflict and cooperation must influence the amount of tension between "town and gown".

A clear correlation was found between university-community tension and the size of the metropolitan population. The enrollment size of the university was an equally significant factor. The two combined show a very high degree of correlation. Of those universities with an enrollment over 25,000 and located in cities larger than 1,700,000 (the largest of three categories in each case) 80% reported frequent or severe tension. Only 12% of the small institutions in small size cities (under 15,000 students and metro population under 900,000) reported a high level of tension.

University size as measured by enrollment is clearly related to levels of tension. At the same time there is no correlation at all between tension and campus land area -- the other measure of university size investigated. Investigation of the level of "town-gown" friction in relation to the percentage of poor or minority

group families in surrounding neighborhoods produced surprising results. No correlations could be found in this case either. If higher levels of tension do exist between universities and their poor or black neighbors, the respondents (all university administrators) seem unaware of the fact. This may well be one of the most remarkable findings of the research since it runs counter to common beliefs. It also suggests that further research would be fruitful.

Exploration of hypothesis three (power balance) was inconclusive as far as the survey was concerned. This is primarily because of the difficulty of guaging the variable. The principal measure used was the number times a university action was stopped by local neighborhood groups. Only a slight correlation was discovered. However, it was noted that as tension levels rise, so do the number and size of community organizations in neighborhoods surrounding the university. Which comes first is an intriguing question.

It was assumed at the outset of the research that changes in the university or the surrounding community would be accompanied by higher levels of tension. Measuring change in some ways, this was the case. Changes in residential density of neighborhoods bordering urban universities, for example, were found to correlate with tension. In large and medium size cities changes in metropolitan size were also related. Similarly those large and medium size universities with rapid increases in enrollment reported more friction. But the relationships were nowhere near as strong as those between tension and absolute size.

Prior to analysis of the survey one of the strongest beliefs held by the research team was that university-community conflict is strongly related to the physical encroachment of the institution into the neighborhood. As shall be seen, work on the case studies seemed to provide ample evidence of this. Surprisingly, however, there was little evidence in the survey that rapid percentage increases in university land area are accompanied by higher levels of tension. The only possible explanation the authors can offer for this is that perhaps universities have been sufficiently sensitive to probable resistance to expansion and have avoided growth into trouble spots whenever possible.

Having established these relationships, the researchers proceeded to examine the correlation between form and tension. As was the case in the categories described above, the strongest relationships were not in the predictable areas. In this case the intensity and spatial distribution of activities proved more significant than patterns of physical form. For example, the degree of university dispersion or concentration was virtually unrelated to tension. On the other hand at universities where large numbers of students live in private housing near the campus, tensions run higher. Similarly, where enrollment densities of the universities are higher (i.e. the number of students per acre of campus land) there is more friction with neighboring residents. Where neighboring residential densities are higher, so are levels of tension. This is related to the matter of university location in the city. Those institutions in or near the central business district or in suburban locations were found to have far less trouble than those in high density residential areas.

In summary, the survey provides evidence that two of the factors examined are related far more clearly to town-gown tensions than all others. These are size (both of the institution and it's city), and the distribution or intensity of activities in the university district. In the latter case the correlation between high tension and the location of the university in high density residential areas is particularly interesting. This seems to coincide with the emphasis many urban designers, ecologists and anthropologists have put on "sense of place" or the "territorial imperative" as critical emotional factors strongly associated with the dwelling place. This factor apparently diminishes in importance where the university competes for space with businesses rather than residents.

The results of the survey are also interesting for the common preconceptions they call into question. University planners, campus architects and urban designers frequently tend to focus on physical factors in considering matters related to university relations and university growth. The survey results repeatedly suggest, however, that "people-related" factors rather than purely physical ones are more significant.

The reader should bear in mind that many of the results reported in this chapter indicate that rather weak relationships were discovered between the variables analyzed (except, of course, for those mentioned immediately above). However, percentage differences of seven to nine percent emerged in many of the tables. The researchers discussed these differences and believe they indicate sound relationships, but the reader is urged to interpret the tables presented as he or she sees fit.

The analysis does show that quite often certain activities that would appear on the scales of tension-producing events would also have several side effects which could be positive. For example, if some form of tension was produced between a particular university and its neighborhood, this tension may have opened up lines of communication which, in the long run may benefit both the university and the community. It may be that the goal of eliminating all university-community tensions is not the most appropriate one. It may be that at times and in certain instances, the university may want to take on an advocacy role for the neighborhood of which it is a part. This advocacy role could of course be a tension-producing activity.

The analysis of the survey requires several further explanations. The reader will have noticed that a number of items in the questionnaire have not resulted in the discussion one might expect. These omissions were made in the interest of brevity. In no case, however, were significant correlations with tension omitted. For example faculty size and the number of academic departments were simply found not be good measures of university size. Land area was judged to be a more useful and comparable indicator of growth than building construction. No correlation at all was discovered between tension and the extent of renewal of similar 'project' activity near the university. Similarly public or private status of the institutions provided no correlation with levels of tension.

A repeated concern in the study has been what might be termed a focus on the negative - that is, tension rather than both tension and harmony. The reason for this is that for better or worse problems seemed to be chronicled and remembered when good will often passed unnoticed. Nonetheless, the researchers have been concerned that whenever there is a higher incidence of negative interaction (tension) between town and gown, there may also be a higher incidence of positive interaction. The responses to question nine in the survey suggest there may be some truth in this. Most institutions reported about the same number of causes of good and ill will. The investigators have been unable to objectively deal with this, however, so the reader is left to speculate on it.

As far as the nature of university actions generating ill-will, physical and non-physical activities were reported with about equal frequency. The respondents named parking overflow, students' protests and physical expansion most frequently. The student life style and demands placed on the local housing stock were also frequently mentioned.

Those activities most frequently reported as generating good will were athletic and cultural events, the availability of university facilities for community functions, student and faculty participation in community problem solving, and continuing education programs. Effective public relations was also frequently cited, with particular references in many cases to briefing the neighbors about future expansion plans.

It was mentioned above that university expansion was one of the most common generators of ill-will. This is inconsistent with the finding reported previously that change in university land area was unrelated to university-community tension. No doubt the design of the questionnaire permitted some inaccuracies which produced problems of this sort. At the same time there have been a number of occasions when the researchers were led to wonder how accurate are the images that university people have of the surrounding areas and their residents. The frequent inconsistencies between the reported frequency of tension and the incidence of tension-producing phenomena is an example of possibly inaccurate perceptions. If this is a problem to any significant degree, perhaps the procedures outlined in Chapter Four of this report will be useful to some institutions.

3: Case-Studies: Three Universities and Their Neighbors

The value of a survey of the type analyzed in the previous chapter lies in the large size of the sample. The disadvantage is the thinness of the data one can collect by mail when imposing on busy administrators. To complement the survey, therefore, three universities have been selected for detailed examination. In each case the growth and change of the institution and its surrounding communities have been followed for the period from 1950 to 1970. The conflicts between the university and it's neighbors as well as key decisions and actions have also been recorded. Conclusions drawn from the history of each university alone and from comparison of the three further explain the relationship between spatial factors and university-community relations.

Among architects and urban designers there appears to be a body of conventional wisdom to the effect that "interaction", "linkage", and social integration are universal benefits. When applied to university planning these concepts normally lead to proposals for the erasure of boundaries and the diffusion of the university into the community. A number of designs with this feature can be found.[1] Conversely most university administrators seem drawn to the concept of a well defined, closed-form campus. When potentially antagonistic groups exist in the community and on the campus, they seem to feel it is wiser to minimize contact between them. Since the degree of university concentration or dispersion is central to both positions, the case-study universities were chosen with this mind. The University of Cincinnati has a very clearly defined, compact "super-block" campus. Although Temple University is compact, it's campus is pentrated by a number of public thoroughfares - one a very busy artery. Finally, Boston University has a diffused campus penetrated both by a number of major arteries and considerable non-university buildings and activities.[2]

Another criterion for case-study selection was that all universities have about the same enrollment. In this way the critical size variable is controlled. The institutions selected also had to have at least a twenty-year history of growth, with plans for future development, and whose officers saw potential benefit from the study.

Much of the data for the case-study institutions takes the form of maps which are included in Volume Two. These maps are not bound so that the reader may easily make whatever comparisons he wishes.

THE UNIVERSITY OF CINCINNATI

CHARACTER SKETCH

The University of Cincinnati is a public institution with a current enrollment of 19,510 day full-time students and 7,674 Evening College students.[3] The University was founded over 150 years ago, and moved to its present location in 1895. Until recently it has been known as a municipal university. This status still exists legally and technically. In 1967, however, it became state affiliated as well. The University's revenues therefore, come from the city, the state, and, of course, in the form of various types of federal and private support.

The University is located near the edge of a high ridge overlooking the center of the city, about two miles to the south. It is surrounded on three sides by residential communities, and on the north by a public park (See Map C-1). Current land holdings are 152 acres. Like most universities it has experienced rapid growth since World War II - particularly in the sixties.

The campus of the University of Cincinnati is a "strong-edged superblock." There seems to have been a consistent and unconscious assumption by those guiding its growth since 1950 that this is a good thing. Little consideration has been given to the possibility of a less compact campus, or one with several major "islands" of university owned land.

To a certain extent UC is typical of many "streetcar colleges" in that it serves a large local clientele. Nonetheless over half of the students presently enrolled are from out-of-town. This is due in part to a "co-op" plan operated by several colleges of the University. Under this plan students are placed by the University in a job related to their major, and thereafter work full-time on alternate academic quarters. This has been a popular program both with students and local employers, and has generated considerable good will for the University.

UC's policy regarding the provision of housing has fluctuated considerably. Throughout the past twenty years, however, there has been a significant number of students living in the district in privately rented rooms and apartments. (See Map Series C-5). In earlier years these students frequently boarded with their landlords' families, although this practice is now quite rare.

The three residential communities surrounding the University of Cincinnati are each quite different in character. Clifton, to the north, is a professional class neighborhood whose residents include a high proportion of university faculty and physicians. (The city's major hospital complex is located about a mile east of Clifton almost adjoining the University).[4] This community is regarded as one of the most attractive in Cincinnati's inner dormitories. It is quiet, shady, and homogeneous in population. Homes sell for $25,000 to $50,000. A rather low key confrontation has occurred in Clifton recently between two groups. One of these is an older, conservative element worried about the advancing edge of a black population (growing out of primarily black Avondale to the east). Their adversaries, the younger professionals, are more liberal in outlook. Integration of the neighborhood's private swim club has been one specific issue. The increasing demand for housing in Clifton by university types has recently given the liberals the weight of numbers, but by the same process housing is becoming too costly for many blacks. The fears of the older residents may therefore be groundless in the end.

Clifton has a growing number of apartments (often in modified single-family homes) occupied by students. There are also several fraternity houses - from time to time a course of irritation to their neighbors.

To the south of the University lie twin communities called Fairview and Clifton Heights. The combined neighborhood occupies the brow of the hill overlooking the city center. It is an area of small but neatly maintained older homes packed onto narrow lots. Its residents for years have been thrifty older families of German origin - typical Cincinnatians in the view of many people. The population picture is changing slowly however. Significant numbers of homes have

been purchased recently by migrants from Appalachia whose foothold in the city has been solidified. Many of the homes they have purchased had contained small apartments for relatives or students. A condition of FHA guaranteed financing has been re-conversion to single family occupancy. The student population in the area has remained relatively constant, however, due to the recent construction of several larger apartment buildings in Fairview.

This community's concerns are also social. There is a growing fear of intrusion by blacks from the "Basin" neighborhoods at the foot of the hill. Tensions between blacks and Appalachian whites in the area to the south has often been ugly and severe. Contact between the people of Fairview and the University has been quite limited, except for the student boarders.

Corryville, the third major community facing UC is the scene of most of the university-community conflict. A look at the maps of community boundaries in 1950, 1960, and 1970 tells the story at a glance (See Map Series C-2). Expansion of the University and the medical center have drastically carved away the neighborhood. Prior to 1957, Corryville's population was quite similar to that of Fairview: older German people of moderate income. Many were retired. In the early sixties, however, a migration of black families into the community began. These newcomers, in many cases displaced by expressway construction and renewal projects in the Basin, were attracted by the decent housing in the area, available at reasonable prices. Relocation to this area was encouraged by renewal officials. In 1961 Avondale and Corryville were designated a "conservation area" under Urban Renewal. Both newcomers and older residents were promised a substantial package of neighborhood improvements and were encouraged to buy and upgrade their homes. Individual grants and loans for this purpose were to be made available. Many residents responded to the urgings of the renewal staff. The other side of the coin was the provision made for institutional expansion in the project. Under urban renewal legislation, credits gained for public improvements accrue to the renewal projects in which they lie. The University of Cincinnati and the city took full advantage of this opportunity, as will be detailed later. As so frequently happens, institutional growth was far easier to accomplish and the pressures for it were greater. The resulting actions eliminated large areas of Corryville. Reactions of the residents have been mixed, but a high level of resentment exists.

Although there was a time when a significant proportion of UC students found living accomodations in Corryville, this proportion has diminished rapidly. There are probably many reasons for this, but the three most likely are the relocation program mentioned above, the university's program of dormitory construction, and the growing availability of more desirable apartments elsewhere.

Map Series C-2, which describes the limits of the above areas, also shows two other major communities partially included in the study area: Mt. Auburn and Avondale. Both of these communities house a predominantly black population. Each has experienced a number of problems (housing, community facilities, crime, etc.), although the portions of each closest to the university are stable and well maintained areas. Neither of these communities has had significant contact with the University.

As stated earlier the communities mentioned were delineated on the basis of school district boundaries, similarity of population, community organization, the presence of a retail center, identity and physical barriers. In addition to the communities described, there is also a curious area immediately west of the university. This small residential area is largely filled with university-affiliated tenants in rather comfortable older homes and apartments. There are also a number of fraternity houses lining Clifton Avenue (the major north-south artery at the edge of the campus). This area is cut off from both Clifton and Fairview by deep ravines. There is no separate community identity in the area; it is sometimes referred to as a part of Clifton and sometimes as a part of Fairview. It has no retail or community facilities.

A similar area of uncertain identity appeared after 1960. This area to the northeast of campus was originally a part of Corryville, but was isolated by institutional expansion and the construction of a major thoroughfare. It may soon

disappear completely, however, as most of its land is currently being cleared for the construction of a major federal research complex.

A description of the area in terms of land use is found on Map C-3. Institutions shown on this map (other than the University), are two hospitals, a high school and a seminary to the west, and medical facilities to the east.

UNIVERSITY-COMMUNITY RELATIONS: A HISTORY

Generally speaking, Cincinnatians have thought well of their university. Many alumni still live in the city. Its co-op program has exposed the students to many people, and the reactions have been favorable. Sports fans were delighted by an era of national basketball prominence in the early sixties. Additional prestige resulted from the medical research work of Dr. Albert Sabin. The academic reputation of the university has been generally rather good.

In the immediate area, the university was equally well respected for years and, to a large extent, still is. Many families in Corryville, Fairview, and Clifton had student boarders prior to the mid-fifties when a program of dormitory construction began. Since 1950, however, UC has experienced a dramatic growth. This process has been accompanied by periodic tensions -- most frequently resulting from land acquisition. Based on newspaper accounts and interviews with knowledgeable university officials and community leaders, we have constructed a record of university-community relations since 1950. (See Page 41).

The issues recorded for the period from 1950 to 1957 reflect UC's land acquisition policy during that period. The University has the power of eminent domain through the city. As each new building was planned, a relatively small parcel of land was acquired to accommodate it. With one notable exception these additions were on the eastern edge of the campus. The university's "front door" -- characterized by highly symbolic structures and graceful lawns-- is on Clifton Avenue on the west. The campus began in it's southwest corner and has been growing steadily northward (until 1953) and then eastward. There has apparently been a continuously held assumption among university development and planning officials that major arteries make good borders, and in any event are hard to cross. Since these existed only on the west and south, the directions of expansion have been clear. Many people whose homes were taken in the early fifties to make room for university expansion were understandibly upset. The reaction was milder than one expects today, however. It was understood, to a large extent, that the university was a public asset and that its expansion was a necessary thing, even if disruptive to the lives of some of its neighbors.

The acquisition of one parcel, however, caused quite a stir. This was the purchase by the university of 18 acres of park land in Burnet Woods Park, immediately north of the campus. This action, which was finalized in 1950, was bitterly opposed by various citizen groups -- especially local garden clubs. Since all of the land the university owned at that time had once been a part of Burnet Woods, opponents were apparently skeptical of university assurances that no more park land would be taken. Nonetheless, the transaction was approved, and construction began soon afterwards on a new academic building.

In the years between 1957 and 1961 several events combined to drastically change the university's local image. U.C.'s policy of eastward expansion by now seemed clear to all. The university had made its previous moves more or less on its own initiative, and not as a part of any overall urban plan. The city's planning director stated in 1957, however, that university growth should be to the south, even though the problem of jumping two major thoroughfares would have to be faced. His remark was no doubt influenced by preliminary reports on a proposed renewal plan for Corryville. This report indicated that university expansion in Corryville would be a problem. The day following publishing of the director's views on the matter, the chairman of the planning commission publicly declared southward or westward expansion would be too costly.[5] The matter was dropped. The brief exchange may have given the appearance of a municipal ratification of the notion of eastward expansion.

The concept of an urban renewal project to stabilize and conserve Corryville has been previously mentioned. Various preliminary studies were undertaken. Since the university's expansion plans would materially affect the success of

the Corryville project, it agreed to commission a master plan to serve as an instrument of public policy and to facilitate renewal planning. The key feature of such a plan in the eyes of both renewal officials and the university was to determine exactly how much land the university would ultimately need. This land could then be acquired immediately and in toto by the university (city council later approved sale of a $ 2.3 million bond issue in order to finance the purchase). Under Section 112 of the Housing Act of 1949, five million dollars in non-cash grant-in-aid credits would be delivered to the Corryville urban renewal project.[6]

This procedure was followed and completed by 1961. A university boundary on the east at Jefferson Avenue (the present boundary) was agreed and the land was purchased. The university stated it would not cross Jefferson. The eastern boundary was further strengthened by the reconstruction of Jefferson Avenue as a six lane artery to carry through traffic around the Vine Street retail complex. This area was to be upgraded into a modern shopping district. Adverse reaction by the residents of Corryville to the university's acquisition of about 60 acres was mild. Adequate relocation time was allowed and appraisals were reasonable. More importantly, however, Corryville was in a state of rapid population change as black families displaced by renewal elsewhere relocated in the area. Many of the older residents whose property was acquired by the university were not unhappy to leave under these circumstances.

The university was obviously delighted to have a sizeable land reserve, and to be delivered from the prospect of frequent negotiations for small parcels. Moreover, it was now soon to be enclosed on four sides by major arteries.[7] This was a disirable situation, its officials believed, from the point of view of vehicular access and clarity of form.

The combination of these events in the years between 1957 and 1961 set the stage for a series of unhappy events which still continue. The Corryville renewal project has not been a success from the residents' point of view. Promised financial assistance in remodelling homes was drastically short of that delivered. A significant number of families upgraded their homes at the city's urging only to have their property taken for still more institutional expansion. Some of these families had already been displaced one or more times by public projects. The university violated its promise not to cross Jefferson when it constructed a nursing school on the north side of Vine Street. There were multiple and diverse pressures on the university in selecting the site, but ultimately a decision was made which resulted in the purchase and demolition of 93 dwelling units.[8] Naturally this created quite a storm. The university's acceptance as a gift of another structure north of Jefferson reinforced the community's lack of faith. At least one community leader in Corryville may have dramatized these issued to gain a higher degree of organization. Students and faculty at the university have on several occasions become concerned about the conflict, helping to keep the issues alive.

The university, since 1963, has undertaken a massive building program. This has included seven high rise residential structures (12-28 stories tall) along the eastern and southern edges of the campus. They house around 5000 students. Their scale dwarfs the older structures of neighboring districts across the streets.[9] The quantum leap to 19,500 full-time students has changed the character of most surrounding retail areas. This includes the new complex in Corryville which is now largely oriented to the student market.[10]

Other institutions have also had an impact on Corryville in the sixties. Seven acres of residential land have recently been cleared for new housing for hospital personnel. Rents will be beyond the reach of most Corryville residents. An additional 15 acres is being cleared of very sound housing to make room for a large federal environmental research facility. While the university has not been a prime mover in these actions, many residents assume guilt by association.

COMMUNITY RELATIONS PROGRAMS

The university and many members of its community have undertaken a number of diverse efforts designed to improve its record as a neighbor. For the most part these projects are conceived by various academic or administrative departments,

varying according to their individual interests and capabilities. Most projects are aimed at problems common to the city as a whole, rather than the immediate environment of the university.

It is hard to measure the extent and effectiveness of offical university involvement in community relations as a matter of policy. The University of Cincinnati maintains an Office of Community Relations. Its director is an associate vice president. During the late sixties he directed a staff of three, including a social planner. The office's budget in 1969-70 was $55,000.[11] Since UC is a municipal university (at least nominally) its official efforts have also been directed toward the city as a whole. This does not mean, however, that it has been insensitive to local community relations. The extent of its involvement might be rated on a scale similar to the following:

1. Extremely concerned about common problems as a matter of policy. Active in joint planning with real citizen participation. Making sizeable expenditures of money and staff time.

2. Concerned as a matter of policy. Appropriate officials are directed to consider local community concerns as a factor in all relevant decisions. Actively involved in unilateral planning work, and in touch with city officials in regard to these issues.

3. Clearly a secondary concern, but nonetheless important. Doing all it considers possible without major expenditures on the problem.

4. Concerned and making noticeable efforts to project a good image through traditional PR practices.

5. Not really concerned. Key issues have never surfaced. No dialogue with local people.

6. Hostile to neighboring communities.

During the period under study the University of Cincinnati would probably fall into category 3 or 4 on such a scale. Some who have been actively involved in certain issues might rate it in category 2 or 5, depending on their role.

The most evident of U.C.'s policies toward its neighbors in recent years have been:

1. An attempt to raise the building density on campus in order to minimize further expansion.

2. An attempt to appear quite open about its plans and policies to all who voice an interest in them and an effort to be honest about past successes and failures.

3. Once a community assistance program has been inaugurated by a university group and has been well received, to encourage it.

Some typical examples of programs developed at the University to help its neighbors are:[12]

1. Saturday art classes conducted for children in local elementary schools by members of the Art Education Department.

2. Membership of various university officials in local community councils.

3. Unofficial planning and architectural assistance to local communities by faculty and students in appropriate departments.

4. A training program to assist community residents assume a more effective role in neighborhood development.

5. A headstart program and community nursery school in Corryville.

6. A summer employment program for local youth.

7. A summer athletic program for local youth, and opening of athletic facilities to neighbors.

8. An enrichment program for an adjacent high school.

9. A student community involvement program.

In 1971 Dr. Warren Bennis became UC's president. Under the new administration there has been a much more intensive focus on the role of the University in its urban context. Several new administrative appointments have underscored this concern.

PLANNING EFFORTS

The nature of physical planning in the district has been partially described. The 1960 Avondale-Corryville renewal plan, and the University's development plan, prepared at the same time, represent the most concentrated efforts since 1950. The university's plan dealt almost exclusively with internal considerations. It has been reasonably well respected as new buildings were begun in the sixties, if only in terms of locational factors. The locations of new residential structures, however, have had a strong impact on Corryville, as previously mentioned. The full impact was probably not foreseen by university officials.

In Cincinnati the Redevelopment (Renewal) Department and the City Planning Commission are separate entities. The first of these can be characterized as aggressive, the latter rather passive. They are not known for their high level of cooperation. In 1948 the Planning Commission published a comprehensive master plan for the city. It acknowledged that the University was following a direction of easterly expansion, but offered no guidance. The maximum enrollment foreseen by the city planners at that time was 6000. In 1950 there were, in fact, 7300 students.

Whenever planning work in the district has been undertaken it has been for the most part unilateral. This has been facilitated by the establishment of clearly demarcated university boundaries. The necessity for complicated coordination is thereby minimized. Although community groups exist in each of the three major neighborhoods in the district, their input to planning has generally been minimal.

THE SOCIAL CONTEXT: A STATISTICAL ANALYSIS

A great deal of data regarding social characteristics within the study area has been collected -- largely from the census of 1950, 1960, and 1970. Each category of data has been mapped for these three years, except where it has not yet been released by the Bureau of the Census.[13] For items where insignificant change, only the most recent maps are included. In other cases maps for 1950 and 1970 are published.

Data on the university population is not included, except as is contributed to off-campus neighborhoods in the district by university-oriented residents. In the 1950 and 1960 censuses, students were enumerated at their permanent home addresses. Consequently, dormitory residents are listed elsewhere. The population of UC must therefore be described by observation. Educational attainment and ages are obvious. Since tuitions are high and scholarships rare, it is assumed that most students come from middle income families. In 1970 about 5 to 10 percent of the students, 6 percent of the faculty, and 18 percent of the non-teaching staff were black.

Primary indicators of the social status of neighboring residents are race, income level, educational attainment, age, marital status and occupation. These are shown respectively in Map Series C-10 through C-15. Data on some items are not yet available for 1970. Nonetheless, many situations previously described can be clearly seen -- for example, Clifton's professional class situation, which has been maintained with no change over the twenty year period. Corryville and Fairview-Clifton Heights are shown to be generally similar in income and education (both low), but different in racial composition.

Map Series C-17 shows the median rents in the district. Rental levels, of course, follow income patterns. It is interesting to note the similarity between maps of rent level and student residence (Series C-5). The students are able to afford the highest rents in the area (probably because the units are occupied by several persons who can share the rent).

The effect of the university on the housing market partially explains the dramatic shift in available rental units shown in Map Series C-18. Between 1960 and 1970 when UC experienced rapid expansion, a dense ring of apartments appeared around the university. Most of these were built on open land, or in areas where there had been some spot clearance. Consequently net residential densities remained fairly constant (See Map Series C-16). While some of the new rental units in Fairview and Mt. Auburn cannot be attributed to the university, those north of campus correspond directly to the residential distribution of university people (Map Series C-5). The degree to which Clifton has become a rental community is also noteworthy.

Map Series C-19 shows housing conditions in 1950 and 1960. Predictably, Clifton comes off best in this respect. There is almost perfect correspondence between high levels of home ownership (Map Series C-18) and sound housing. Conditions in Fairview, Corryville, and Avondale are less predictable. Although the housing in Fairview-Clifton Heights was by far the worst in 1950, it is hard to speculate on the meaning of this. One observes, nonetheless, that the most dramatic deterioration occurs in the path of the university's eastward expansion and where the population was still almost all low income whites.

Maps of crime in the area (Series C-20 and C-21) are also interesting.[14] There is some degree of correspondence between income level in a neighborhood and its levels of crime; only upper income Clifton remains relatively crime free. But areas in the path of rapid institutional growth also show dramatic increases in non-violent crime. In 1950 the levels of crime throughout the district were relatively low and even. The average crime rates for the study area were below those for the city as a whole. In 1960 rates began to rise. Non-violent crimes in the district were well over the city average -- In Corryville as much as five to ten times as high. The increase continued through 1969. The medical center and the Corryville shopping district have the highest rates. Perhaps this indicates they are attractive targets.

THE PHYSICAL FORM OF THE UNIVERSITY

As stated before, the study area is that area within walking distance of campus. It also contains the noticeable concentration of residences of university people, and has rather distinctive physical boundaries (e.g. topographic breaks). Primary form characteristics are:

The degree of concentration or dispersion of the university proper in the study area.

The boundaries of university owned lands are indicated by solid lines in Map Series C-4. Buildings shown in black are university occupied. The compactness of the campus is quite evident. This feature can be measured by the "openness" ratio $\sqrt{A/p}$ as indicated below.[15] These ratios will become quite valuable when used to compare different universities.

	1950	1960	1970
Land area owned by the University	62 acres	93 acres	152 acres
$\sqrt{A/p}$	.222	.194	.247

The pattern and nature of contacts between university and non-university people.

University people and their neighbors meet in several kinds of situations -- in stores, through commercial transactions, as residential neighbors, and in the street. The patterns around UC are illustrated in the following ways:

a. The university's functional self-sufficiency. Whatever services it

provides for its population need not be sought off campus. Housing and food service are the indicators that were used. At UC the following conditions have existed:

	1950	1960	1970
Percent of students living in the district who reside in university-owned housing	14.0%	38.4%	45.8%
Percent of students living in the district who are full boarders	?	27.0%	34.4%
Number of meals served per day per capita university population (evening college students not included) (vending machines not included)	?	?	.52%

b. If the above shows the degree to which university people don't patronize local merchants, Map C-6 shows where they do. Each dot represents a retailer oriented to the university community.

c. Map Series C-5 indicates the distribution of university peoples' residences in the district. The effects of dormitory construction programs are dramatically illustrated. Also interesting is the even distribution of off-campus student residences in 1950, and the heavy proportions building later to the west and in Clifton. In 1970 the marital status of student residents is shown (this data was not available for earlier years). The distribution of married students is far more even than that for single students.

Residential locations formed the basis for delimiting the university district. The edge, shown in Map Series C-2 as a dashed line, occurs where the residential density of university people becomes less than ten persons per acre.

d. A common cause of university-community friction is the saturation of available parking space in the area by university people's cars. Although no data was available in 1950 or 1960, Map C-7 shows the situation in 1970. All parking shown on university owned land is paid parking; that on commercial streets is metered; the rest is free curbside parking.[16]

e. Originally it was intended to include a map showing the traffic loads on local streets contributed by university-bound cars. Unfortunately, insufficient traffic counts are available to draw reasonable conclusions. However, on those few streets for which data was available (both on a typical work day and when the university was closed) the university-generated traffic was slightly more than half of the total.

There are two major points of rush hour congestion in the district: the intersections at Clifton and St. Clair, and Clifton and Calhoun.

<u>The strength of the university's visual image as distinguished from its surroundings</u>.

When tensions exist between a university and its neighbors, high "visibility" of the institution may become a constant reminder of the situation. In districts concerned about maintaining a residential character, a nearby university with dominant buildings may be unwelcome.

Map Series C-9 documents the potential for this problem at the University of Cincinnati. In this series of maps, the edge character of the university is described. Four aspects of the edge are considered and rated on a point scale. These are:

1. Differences in building heights on each side of the edge. One point is assigned for each story of height differential.

2. Broad, busy streets as edges. One point is assigned for each lane of the street (including parking lanes). These ratings are halved where traffic volumes are light.

3. Topographic differences at the edge of campus. One point is assigned for minor differences, two for major.

4. Open space differences at the edge. As above, one point is assigned for minor differences, two for major.

The maps in this case show a progressive rise in the strength of the university's form on all sides except the west. The face opposite Corryville is particularly strong. This is due in large part to the university's policy of raising densities to avoid further expansion. Construction of major thoroughfares on the north and east edges has also had an effect. Since the western edge was virtually filled with university buildings by 1950, little change would be expected. It is also true, however, that this face is the university's "front door" -- it displays the symbolic Georgian structure and green lawns which one tends to associate nostalgically with fine old universities. The photographs on Page 36 illustrate the character of this and the other faces of the university along with the views opposite them. They are keyed to Map C-9-70.

Another impression of the size and scale of university structures relative to those in the rest of the district can be gained by the base maps themselves. The change in the fabric and texture of the district from 1950 to 1970 is dramatic.

It is occasionally stated that university expansion causes property conditions to decline. Whether this is true in any given instance requires careful study. In any case, however, a drastic difference in building conditions on and off campus could cause resentment -- however irrational. Map Series C-19 depicts building conditions in the districts surrounding UC in 1960.[17]

University Size

The measures of this critical form characteristic are indicated in Table 32.

SUMMARY: THE NATURE OF CONFLICT

Physical form and social characteristics within the university district are summarized in Tables 31 and 32. The three major communities and their relationships to the university in the district are indicated separately. Similarly, Table 33 identifies major university-community tensions with each of the three neighborhoods.

It is clear that many of UC's problems with its neighbors have been related to physical expansion. Most of these have been with Corryville, which has absorbed almost all of the university's expansion since 1950. The changing social composition of that neighborhood, the tactics of renewal, and the past misfortunes of many of its residents have contributed to these tensions. The recent national tendency for black communities to develop political strength is also reflected in Corryville. This has brought some latent tensions into the open. But the issue has repeatedly been expansion. Moreover, conflicts have become far more intense as the rate of university expansion increased in the sixties.

The comparison between Fairview and Corryville emphasize the above. Both have residents with similar income and educational levels. Both have had similar contacts with UC except for the matter of expansion. But there has been virtually no overt tension between the university and Fairview. One university official stated: "It's almost as if it didn't exist." A Fairview civic leader, when interviewed, was almost equally unconcerned about the presence of the university.

UC's impact on Clifton has been of a different nature. Because of the heavy settlement of university people there, Clifton to a certain extent is UC. There have been occasional minor tensions, but for the most part relations are harmonious. This is true in spite of the university's overwhelming effect on Clifton's housing market.

A chronological record of incidents of conflict from 1950 to 1970 is included on Pages 41 to 43. Although only the more significant events have been included, they provide substantiation for this summary and the sections which have preceded it.

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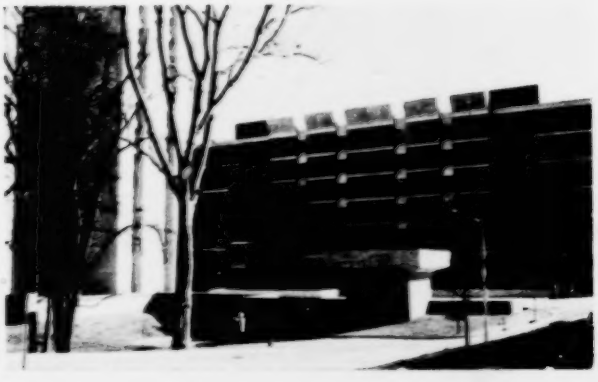

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TABLE 31

SOCIAL CHARACTERISTICS OF NEIGHBORING COMMUNITIES	CORRYVILLE	CLIFTON	FAIRVIEW-CLIFTON HEIGHTS
Race	99% white (in 1950) to 50% white (in 1970)	99% white continuously	99% white (in 1950) to 93% white (in 1970)
Income levels	$2,200 (in 1950) to $5,000 (in 1960)	$3,600 (in 1950) to $7,900 (in 1960)	$2,800 (in 1950) to $5,000 (in 1960)
Educational attainment	9 to 10 years	12 to 13 years	8 to 9 years
Home Ownership	30% (in 1950) to 25% (in 1970)	45% (in 1950) to 35% (in 1970)	35% (in 1950) to 25% (in 1970)
Levels of violent crimes	0.01/acre (in 1950) to 0.20/acre (in 1969)	0.01/acre (in 1950) to 0.02/acre (in 1969)	0.02/acre (in 1950) to 0.12/acre (in 1969)
Levels of non-violent crime	0.15/acre (in 1950) to 2.17/acre (in 1969)	0.05/acre (in 1950) to 0.30/acre (in 1969)	0.10/acre (in 1950) to 1.30/acre (in 1969)

TABLE 32

PHYSICAL FORM CHARACTERISTICS

Degree of concentration:	Very compact, hard-edged superblock		
University Size:	152 acres, 25,000 enrollment (1970 data)		
	CORRYVILLE	CLIFTON	FAIRVIEW-CLIFTON HEIGHTS
Patterns of university-community contact	few student renters major patronage of local stores (student-oriented) some parking areas saturated	many student renters major patronage of most local stores minor traffic congestion	few student renters major patronage of local stores (student-oriented) some parking areas saturated major traffic congestion
University's visual image	weak (1950) to very strong (in 1970)	N/A	weak

TABLE 33

TENSIONS OR CONFLICTS WITH	CORRYVILLE	CLIFTON	FAIRVIEW-CLIFTON HEIGHTS
Related to Physical Factors	series of incidents related to expansion 1950-1970	housing costs affected 1963-1970	
	distrust of university 1964-1970	expansion incident 1950	
	conflict of interest 1950-1970		
	housing condition affected 1955-1970		
Related to Social Factors	distrust of university 1964-1970	minor incidents related to value differences 1963-1970	
	series of minor incidents related to value differences 1960-1970		
Effective organized community relations	moderate 1950-1970	not relevant	not relevant
Joint planning	with city only - no residents involved in meaningful way	no	no
Effective community organization	reasonable 1950-1963 yes 1963-1970	yes 1950-1970	reasonable 1950-1970
Levels of political activty	moderate	moderate	low

CHRONOLOGY OF EVENTS AT THE UNIVERSITY OF CINCINNATI: 1950-1970

1950 The University purchased 18 acres of land in adjacent Burnet Woods Park for $50,000 and 3 acres of land elsewhere. There was wide opposition to the move by many individuals and groups throughout the city. The university promised not to make further park annexation.

1950 The College of Applied Arts building was programmed to go on newly purchased parkland.

1951 City Council authorized bond sale for land on the east side of campus on which to construct a fieldhouse, an armory and a dormitory. A total of 51 parcels of land were involved. Previously, property immediately north of the site had been assembled, but architects later considered it unsuitable.

1951 U.C. purchased 26 more parcels on the east side of campus. This site had originally been slated for a junior high school. The sale price was $ 27,610.

1952 A bond issue for UC capital improvements was defeated.

1953 Neighbors expressed concern over the university's intentions to begin major intercollegiate football activity. Parking overflow at game time was the issue.

1954 U.C. officials expressed their pleasure that fraternities were beginning to cluster on Clifton Avenue (just west of campus).

1955 Land was purchased for parking lot expansion. Three houses were taken on the northeast side of campus.

1956 A proposal was made to rebuild Jefferson Avenue (east of campus) as a major artery bypassing the Corryville commercial district. The Corryville Civic Association oposed the plan.

1956 Corryville residents complained about increased student parking on local streets.

1956 University officials complained that 20% of students living off campus were living in sub-standard housing.

1957 The director of the city planning commission stated university expansion should be to the south rather than east in order to facilitiate Corryville renewal planning. His commission chairman claimed this would be too costly.

1957 U.C. asked the city council for funds to buy land for a dormitory on the east side of campus.

1958 New parking complaints were voiced by Corryville residents. The city manager said there is no possible solution to the problem.

1958 Additional land was purchased for parking lot additions.

1958 A preliminary proposal on the Avondale-Corryville renewal project was published and approved by the city. The proposal called for upgrading of Jefferson and St. Clair Avenue (east and north of campus) to major routes; also proposed were "limited improvement areas" in areas reserved for UC and hospital expansion (home owners wanting to make improvements would be prevented from doing so, but given opportunity to sell to the city instead).

1959 Major streets abutting UC on the south and west were designated truck routes. The university complained.

1959 Proposed code enforcement on overcrowding in fraternity houses was announced. Four hundred students might be displaced.

1959 U.C. commissioned a campus plan. The university and the city agreed on expansion to Jefferson Avenue. This was included in the Avondale-Corryville renewal plan. The renewal plan was formalized. The city issued bonds for UC to acquire this land. It was purchased and this resulted in financial credits for the urban renewal project.

1961 The university stated that Jefferson Avenue would be the limit of expansion. New academic structures would be built on land already owned.

1862 Corryville Community Council objected to the proposed use of house trailers for temporary dorms on the east side of campus.

1962 A Corryville resident filed suit to prohibit dorm construction with Federal funds when adequate housing in the district is available on the private market.

1962 Corryville residents were concerned about UC's expansion. The university response was that plans had been previously discussed with the community council and there had been no objections. Renewal officials claimed UC expansion would generate business in Corryville.

1964 Corryville residents protested selection of nursing school site. A major controversy developed which continued into 1966.

1964 St. Clair Avenue (northern boundary) was completed as a six lane artery.

1965 U.C. was publicly criticized by a city councilman for not coordinating site planning for the nursing school with the city.

1965 U.C. was designated by the Ohio Board of Regents as one of three major centers of graduate instruction in the state.

1965 A fraternity complex on campus was proposed. (It soon became evident that the fraternities could not afford new structures).

1966 Renewed complaints about on-street parking.

1966 One Corryville resident living in the area acquired through urban renewal comitted suicide. Although he had a history of mental illness. the suicide allegedly was triggered by the loss of his home.

1966 An extensive section of McMillan Street (south of campus) was rezoned for business use because of UC market demands. This quickly became an area of short order restaurants and other student oriented businesses.

1966 University Avenue was closed to the public. This had been a major east-west street north of the 1950 campus. St. Clair has served this same function since 1964.

1967 A student was assaulted and killed by local teenagers in Fairview. This spurred formation of the Fairview-Clifton Community Action Group.

1968 The university announced that all persons listing available apartments at the university housing office must sign a non-discrimination pledge.

1969 Beer sales on campus were authorized.

1969 A major center of drug activity began to grow on the south edge of the campus.

1969 The president of the Corryville Community Council expressed his skepticism of university intentions regarding expansion, in view of the past record. He said "U.C. has left us almost without hope."

1969 Federal funding was budgeted for a major environmental health research facility. The site chosen was a four block area on the north-east edge of campus. The area was solidly residential. A site selection report by a consultant gave it the lowest recommendation of four possible sites.

This created strong hostility in Corryville. Some people believe the University was active in soliciting the facility near campus. University officials maintain it was not, although it is pleased to have the facility nearby.

1970 Student disturbances following the Kent State incident took various forms. One, in protest over university policies, was student interest in the plight of Corryville.

The record of these and many other less significant events was compiled from press clippings, various university documents, and interviews with persons involved in some way with these events or having a thorough knowledge of them.

TEMPLE UNIVERSITY

CHARACTER SKETCH

Temple University had its origin in 1888 when Rev. Dr. Russell Conwell secured a charter for an evening institution to offer instruction to a small group of poor students aspiring to the ministry. The lessons were conducted originally in Grace Baptist Church which was located near the center of the present Temple University campus. Propelled by the spectacular energy and sense of mission of Dr. Conwell, a full-blown university evolved from this beginning in less than twenty years. Dr. Conwell's vision was of an institution providing a full range of educational opportunities from high school to the professions. In addition, however, he saw the institution as an instrument of service - to the urban community in general, and to North Philadelphia in particular. This concept may have been interpreted differently by succeeding administrations, but it has generally provided Temple with a continuous sense of purpose right up to the present time.

Temple University is about the same size as the University of Cincinnati. In 1970 it had a total enrollment of 26,612 students on it's main campus at Broad and Montgomery Streets in North Philadelphia.[18] Approximately 14,000 of these were full-time day students. (See Table 37).

Like most universities it experienced a period of major expansion in the sixties - both in terms of enrollment and physical plant (See Table 39).

At present, Temple occupies about 72 acres of land. The campus is located two miles north of the center of Philadelphia (See Map T-1). It has spread across about fourteen blocks of Philadelphia's rigid gridiron street pattern. Nearly all of these streets in the Temple area are still open to traffic. Several are major arteries which carry heavy volumes of through traffic.

The North Philadelphia area, in which Temple is centered, is a district which has experienced extreme deterioration of many sorts. The extent to which this is true is documented in the accompanying series of maps. They should be examined in chronological sequence and also in comparison with similar data for the areas around the University of Cincinnati and Boston University. Although there has been continuous renewal activity in North Philadelphia since 1948, social and environmental conditions in most of the area are still dismal in the extreme. In the areas surrounding the University of Cincinnati and Boston University, patterns of community organization, land use, open space, demographic and topographic variations combine to provide rather clear structures of neighborhood identity. This has not been the case, however, in North Philadelphia, except where renewal projects have created islands of a different visual character and in some cases brought in a different type of resident. The land in the district is flat and featureless. In an area of well over five square miles, it is covered by densely packed housing with few interruptions. (See Map Series T-2, T-3 and T-16). While the area east of the Reading Railroad is partially populated by people of Puerto Rican origin, the rest of North Philadelphia is occupied almost exclusively by poor blacks.[19] (See Map Series T-10 and T-11).

It can be seen from the above that in the very years that Temple University experienced its period of dramatic expansion, deterioration of many types in the surrounding community has been quite demonstrable. The University is still dedicated to the idea of urban service, but at the metropolitan scale. Consequently it has recently found itself a close neighbor to a vast population which is not necessarily its primary constituency. Many of TU's neighbors, in fact perceive the university either with indifference, concern or hostility.

Temple is largely a facility for commuters - with a day shift and a night shift. It is very largely independent of the surrounding district. Consequently, the world immediately beyond the campus is largely unknown to most of the Temple community, and for many it is feared. Only 10 - 15% of the students live on campus or in the district (See Map Series T-5). Student patronage at local stores is quite limited and confined mainly to a few shops on Broad Street. (See Map T-6). Temple people and community people simply have little in common.

Planning Efforts

Throughout the past two decades there has been an unusual level of planning activity both at Temple University and in the city of Philadelphia. The city's planning commission and redevelopment authority first began renewal activity in the Temple area in 1948. At that time the area bounded by Broad, 15th, Girard and Susquehanna Streets was designated a redevelopment area. This particular area was selected for attention because of its comparatively high levels of physical decay at that time. As planning has progressed, portions of this area have been cleared and redeveloped in successive stages. Although project boundaries have changed from time to time, there have been three principal foci: the "Southwest Temple Area", the university itself, and the "Northwest Temple Area".

The plan for the Southwest Temple area was published in 1950. It called for clearance of most of the area (See Map Series T-4) and its redevelopment as a large residential community with supporting commercial services. These objectives have been substantially achieved. The area now contains a mixture of public housing, private rental housing for low-income families, and town houses built for sale to middle-income families. In addition the area is the site of Progress Plaza, a neighborhood shopping center developed under the leadership of Rev. Leon Sullivan, a well-known early advocate of black entrepeneurship. As a result of this concentrated renewal activity the area south of Temple University has changed rather dramatically. Density is down from around 140 persons per net acre to about 60. (See Map Series T-16). In the Yorktown Homes community immediately south of the university (containing the homes built for sale), a stable, middle-class population has appeared whose economic situation is considerably better than that of the rest of the area's residents. Consequently, it has become one of the few clearly identifiable sub-communities in the Temple vicinity.

Technically most of the Temple University campus lies within the boundaries of the Northwest Temple Redevelopment area. But since the academic and residential portions of the project are scarcely related, they can best be described separately.

The housing surveys undertaken by the planning commission in the early fifties show the residential areas just east and north of Temple as the most blighted in North Philadelphia.[20] Although these areas were included in the project area, conditions at present are not greatly different. The only noticeable effort to improve housing has been the construction of Norris Homes, a public housing project, in the early fifties (another of the few identifiable sub-communities).

Since about 1950 Temple University itself has been extremely conscientious in attempting to plan its physical development. Its present in-house complement of officers and staff engaged in various aspects of planning or architectural services has increased greatly in the past few years. In addition one well known Philadelphia architectural firm has functioned almost continuously as campus planning consultant since about 1955. This firm has produced "master plan" documents or other major planning studies in 1956, 1960, 1963, 1966, 1969, and 1971. Several other consultants have also been engaged from time to time for specialized assignments.

It is interesting to examine changes in the nature of Temple's physical development and planning style. Since the fifties the University and its consultants seem to have held attitudes about development and employed planning techniques which were, at any given time, widely considered to be thoughtful and proper.[21] In a sense, then, Temple's experiences can be viewed as a sort of capsule history of American post-war urban campus planning.

Up until the mid-fifties the University's growth was accommodated by rental or purchase and renovation of existing structures in the area. In particular, a large number of residences and church structures were acquired. Even as this was happening, however, the administration was wrestling with a critical decision. The university was growing rapidly. It's students were drawn largely from the metropolitan area, but relatively few came from North Philadelphia. Temple had recently acquired a large parcel of land in suburban Chestnut Hill. The question then, was whether to concentrate growth in that location and gradually phase out the facilities at Broad and Montgomery. In 1955 the decision was made to stay

in the city. To a large degree this was based on a reaffirmation of the institution's historical urban service policy. But the decision was also the result of agreements reached with the city whereby urban renewal would be used as a tool to assist the university to gain expansion room.[22] As mentioned above, the Northwest Temple Area project, published in 1955, provided for considerable TU expansion. (See Map Series T-4). In fact there were 38 acres allocated to the university, which at that time occupied only 7 acres. Moreover, for the first time it would have a traditional "campus" with a fair proportion of open space. The following year actual land holdings increased by 15 acres when the University purchased Monument Cemetery just across Broad Street on the west. This area was not a part of the renewal allocation. Consequently, actual and anticipated holdings had grown to 53 acres by this time.

With sufficient land now available to permit a major expansion program, and with construction funds available through various governmental agencies, Temple commissioned its architects to undertake a physical development plan.

In 1959 Dr. Millard Gladfelter became the president of Temple University. He had already served as Vice President for Academic Affairs for a number of years and was largely responsible for the planning decisions in the fifties. He and his board chairman shared a vision of the university building "one of the finest urban campuses in the United States. What is now an ugly, blighted area", they stated, "will become an attractive parklike oasis, upon which will rise many handsome, modern buildings surrounded by beautiful shade trees and spacious green lawns." With these words they launched a 15 year, $50 million construction program. The expected extent of this program was described more graphically in a newspaper article the following year based on an interview with Dr. Gladfelter.[23] The article described an expected enrollment of 40,000 on a 138 acre campus bounded by 18th, Columbia and Susquehanna Streets and the Reading Railroad. (See Map Series T-4).

In 1964 nearly all of the above area was certified by the City Planning Commission for Temple University development.[24] The portion of this earmarked for early development (about 42 acres) was reflected in the designation of the land between Broad, 12th, Diamond and Columbia as an "Institutional Development District" by the city. (In addition the university still held the 15 acre cemetery site). This was the first application of a new zoning ordinance which secures for an institution the requisite zoning for expansion provided it prepares and adheres to a development plan given prior approval by the city.[25]

In 1965, the growth rate accelerated once more. In the year TU became a part of the Commonwealth of Pennsylvania's System of Higher Education. This new status increased it's financial support from the state, but also brought a demand for expanded enrollment. In order to guide the resultant physical growth, yet another development plan was prepared in 1966. The boundaries of the institutional development district were expanded to enclose an area of about 86 acres.

UNIVERSITY-COMMUNITY RELATIONS - BEFORE AND AFTER

At this point, the style of Temple planning and development began to undergo some traumatic changes. In order to explain the events which the university was about to face it is necessary to back up and look at Temple's surroundings during the years discussed above. By 1950 the process of decay in North Philadelphia was under way, and since then the area has experienced steady decline. Measured in almost any terms most of North Philadelphia remains a dreadful environment. Map Series T-10 through T-19 give a picture of economic and social conditions. Housing densities have dropped since 1950, but only because of selective urban renewal and a steadily increasing vacancy rate. The physical base maps which show the built form of the area, describe far more clearly than statistics the building densities which still remains.

The physical structure of North Philadelphia is not readily apparent. (See Map Series T-2). There are no topographic features to define neighborhoods, as in Cincinnati. The only physical features which divide "places" are the railroads and the major thoroughfares. There are no place names - only streets. There are few areas with distinctive demographic characteristics. The proportion of home ownership is extremely low. In short, the physiognomy of the area around Temple provides little assistance in helping residents to identify with their neighborhoods.

When the city looked at these conditions in the fifties and early sixties, they focused on physical decay. Urban renewal was seen as a tool for clearing away "blight".[26] The concept of relating social, economic, and physical problems was not characteristic of the times. But our sensitivity nationally to such concepts has grown since the years under discussion. Moreover, there was the dramatic shift in attitudes about race which came in the mix-sixties. The civil rights movements, the riots, the black power and separatist movements, the new awareness of black youth - all these things dramatically affected the psychology of American urbanites - both white and black. There were other changes in awareness. Americans - especially poor Americans - were noticing more and more that our successes in space exploration, highway construction and the development of higher education were not being matched by similar progress in the solution of housing and inner city problems. (North Philadelphia provided ample evidence of this.) The expense of a questionable war in Viet Nam raised widespread concern over national priorities. Locally Model Cities organizations and socially motivated advocate planners were advancing community awareness of poor conditions and the demands for improvements. Television simultaneously displayed the dimensions of the "good life" to the poor.

Temple planned its expansion prior to most of these perceptual and conceptual changes. Its administration was enthused over the new opportunities to build a greater university. But they also were proud that by doing so and by developing a lovely campus they were making a significant cultural and aesthetic contribution to the city in general and North Philadelphia in particular.

As we know now local residents saw Temple expansion somewhat differently. The university mainly touched their lives when a family was forced to move. And as the rate of university growth accelerated, this was happening to more and more people. The university estimates it occupies an area which once housed about 7000.[27] There was concern and resentment, but it was mainly limited to those affected. In any case there was no organized protest against the University until 1966. At this time a group of its neighbors, beginning to display the new black self-assurance and worried about the institution's latest plans to expand west across Broad Street, organized themselves to fight. The result was a declaration by the university of a moratorium on construction west of Broad Street.

This event marked a turning point for Temple in terms of community relations and university planning. In the next three years more than a dozen community organizations appeared or became active in the immediate Temple area. Many of them were sensitive to their potential power to oppose the University's expansion. Simultaneously (though not related) the spontaneous behavior of individual youths and gangs in North Philadelphia became more and more hostile. Crime rates had already increased in the area[28] and the Temple community concerned itself more and more about safety. The University quickly took on a defensive posture relative to the community. In some respects it appeared beseiged. Those officials who had guided Temple's growth so rapidly in the years just preceding these events were not able to immediately adapt themselves to the new environment. As a consequence community relations and planning efforts were not wholly responsive to changing demands.

There were others in the university, however, who had been trying to work with the local community for several years. Working mainly through the "Center for Community Studies" and later the "Office of Urban Affairs" they attempted to make university services and facilities available to its neighbors. More importantly they tried to find mutally acceptable solutions to common concerns and serve as a sort of "in-house" advocate of the community to the university. But the community quickly learned that this group did not necessarily speak for the administration. Consequently their efforts had not been very effective in preventing a build-up of tension. But the existence of the Office of Urban Affairs with it's contacts in the community became a valuable resource to the university. After 1966 the administration began to put it to use and to adopt some of the policies to which its staff were sympathetic. Where previously the university announced its planning decisions to the community ex post facto (with appropriate PR cushioning), it now made the planning process more of a public matter. Insofar as it felt was possible, the administration tried to understand and acknowledge community concerns. The motivations were probably mixed: fear of triggering more confrontations and genuine commitment

to (rapidly changing) concepts of community responsibility. The rate of construction was not reduced during these years from 1966 to 1969, but new buildings were being placed on previously held land rather than on expanded edges of the campus. The planning consultants were asked to explore the implications of higher density development within existing boundaries. Simultaneously the university, under the new administration of Dr. Paul Anderson, commissioned a study of its planning processes. A new Associate Vice-President for Planning was hired to guide physical development and coordinate it with academic and fiscal programming.

In spite of the University's new efforts, however, the forces and trends which were causing problems had gained too much momentum to be easily controlled. The university's earlier plans for rapid and extensive expansion were now widely known in the area. Temple's new attitudes were either not believed by community leaders, or were ignored in order that the threat of continued expansion could be used to build support for new community organizations. The new styles of mobilizing black power and of confrontation were now national realities, and Temple expansion provided many North Philadelphians with a real issue on which to focus them. The student power movements launched in 1968 and 1969 stridently supported the demands of Temple's neighbors.

The new attitudes of the university administration, the students and the community led to a meeting in May of 1969 which started an even more dramatic chain of events. At that time over 90 representatives from Temple and the community, plus city, state and federal officials met on the campus to discuss ways in which the university and the community could resolve their differences and work conjointly toward mutually beneficial growth and development.[29] In subsequent meetings it was decided to follow the suggestions of the representative of the U.C. Office of Education and undertake a planning "charrette". Under this process the university's plans for future development were to be the focus of an intensive series of joint planning sessions over a very short time span. Again, representatives of the university, the community and all relevant governmental agencies were to be active participants. Detailed planning for the charrette was undertaken. The $85,000 budgeted for the process was provided by federal agencies and the University. The community was allocated $42,000 of this to secure the services of a team of professional planning advocates and to enlist active community participation. On December 1st of 1969, the charrette began and lasted until December 19th. Several papers have been written detailing the process from different points of view,[30] and many postmortems have been held. Nearly, all involved seem to agree that the charrette was a failure. What was to have been an exercise in coordinated planning descended quickly into a bargaining session over land. The charrette ended in a stalemate which was resolved in the following months in a series of further meetings mediated by stated officials. The outcome of these latter meetings was a contractural document called the "Community-Temple Agreement of 1970." Under the provisions of this document Temple agreed to a readjustment of the boundaries of its Institutional Development District. In effect, it lost nearly 13 acres of land to the community. It further accepted building height restrictions on development in one portion of the campus and bound itself to seek community approval of plans prior to development of other parcels of land. The most important outcome of the charrette and the subsequent meetings, however, is not a matter of record. It is the fact that Temple and its neighbors were maneuvered into the position of formal adversaries. The concept of coordinated planning was not forgotten, but became quite cumbersome and difficult. Both groups, moreover, were left exhausted and discouraged by the process. At the time of this writing there are new efforts underway to deal jointly with university-community tensions. The university reports there is some cause for optimism. But largely as a result of the charrette, the climate for a period of time was not conducive to such efforts.

COMMUNITY RELATIONS PROGRAMS

A good deal has been said about this in the narrative above. In recent years Temple University's community relations efforts have gone far beyond those of the other case-study institutions. In discussing the University of Cincinnati we established a scale by which community relations attitudes might be gauged (See Page 30). In the years prior to 1966, Temple would have to be listed in Category 3 or 4, but subsequently either Category 1 or 2 would give a more appropriate description.

Like most urban universities recently, Temple and individuals within it have been involved in numerous projects aimed at aiding the local communities. In particular, its commitment to providing considerate admissions standards, financial aid and tutorial assistance to minority students is noteworthy. These policies have enabled the enrollment of a far higher proportion of students from North Philadelphia than would normally be possible.

TEMPLE'S CAMPUS TODAY

The preceding narrative has described the growth of TU's campus from a small group of second-hand buildings covering seven acres of land (in 1950) to its present 72 acres. Map Series T-4 and T-8, as well as Tables 37 through 45 further document the university's rapid development and the nature of the present campus. Although enrollment density and gross floor area ratio have declined, the campus still gives the impression of high concentration of activities and buildings. In the discussion of the University of Cincinnati the degree of campus dispersion was measured by an "openness ratio expressed as $\sqrt{A}/p$ (See Page 32). Table 42 shows these ratios at different periods in Temple's growth. In calculating the ratios, all edges of land parcels abutting public thoroughfares were considered a part of the perimeter (p). Accordingly the large numbers of streets piercing the TU campus are considered as contributing to its diffusion. The campus is therefore both concentrated (See Map Series T-4) and open to outsiders at the same time.

Parking at Temple, as at most institutions, is quite a problem. In 1970 there were 2,341 off-street or curbside parking spaces inside the Institutional Development District. There is still substantial overspill into the community and this is a significant irritation to the neighbors.

The visual strength of the campus at it's edges is much lower than that at UC (See Map Series T-9). This is so for a number of reasons. The neighboring buildings are several stories high -- approaching the nature of campus structures. The university does not sit on a commanding site (as UC does) and it has little more open space than its neighbors. The profile of the campus is stronger mainly for those approaching along Broad Street. The photographs on Page 50 and 51 documents the character of the campus edge. (The photographs are keyed to Map T-9-70.)

In summary, it is accurate to say that Temple's campus (as well as its location in the city) is quite different from Cincinnati's. It is at once denser yet more open, and much more "urban" in character.

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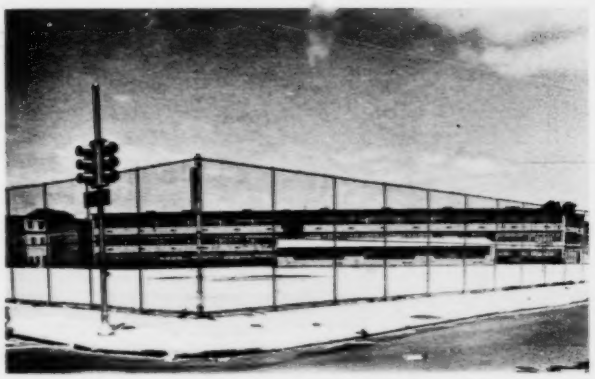

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CHRONOLOGY OF EVENTS AT TEMPLE UNIVERSITY: 1950-1970

1950 The Southwest Temple Area Redevelopment Plan was published by the Planning Commission. The plan called for extensive clearance and residential redevelopment of a large area immediately south of the university.

1952 Temple University asked the city for assistance, through urban renewal, for expansion into the area bounded by Columbia, Susquehanna, Broad and 12th Streets.

1955 Construction of a new classroom building and dormitory building was begun. These were the first of Temple's new buildings.

1955 The Northwest Temple Area Renewal Plan was published. Roughly half of the land in this project was designated for Temple expansion.

1955 The university declared it's intention to concentrate its future growth in North Philadelphia rather than a suburban campus.

1956 Nolen-Swinburne and Associates prepared Temple's first campus "master plan".

1956 Temple purchased Monument Cemetery.

1957 A city councilman complained publicly about Temple's acquisition and control of the cemetery land. He wanted city control in order to insure joint community-university use.

1959 Dr. Millard Gladfelter became president and announced a 15 year, $50 million development program.

1960 A new "preliminary" campus expansion plan was prepared.

1960 Dr. Gladfelter stated the desire to eventually expand the campus to 138 acres and enrollment to 40,000.

1961 The Center for Community Studies was opened.

1961 A number of TU faculty participated in a Ford Foundation project for development of the North Philadelphia area.

1962 The city passed an Institutional Development District zoning ordinance.

1963 Nolen-Swinburne completed a plan for Temple's proposed Institutional Development District.

1965 Temple became a "state related" institution.

1965 A "Community Relations Advisory Council" was formed. This was a vehicle to get community input on Temple policy planning.

1966 "Temple University Development Plan - 1975" was completed by Nolen-Swinburne.

1966 Temple asked the city to expand the IDD from 35 to 60 acres.

1966 The first overt community protest over TU development was raised. At issue was dormitory construction west of Broad Street.

1966 A moratorium was declared on construction west of Broad Street.

1967 Dr. Paul Anderson became president.

1967 The university arranged for private development of apartments for faculty and graduate students in the SW Temple Renewal area.

1967 The Student Community Action Center was established - a university based, locally oriented "VISTA" type organizations.

1967 The "Citizens Urban Renewal Exchange" was formed. This group, led by a North Philadelphia man, was active in opposing university expansion when there were inadequate relocation provisions.

1967 The "Wilburn Report" was published. This study, commissioned by the University for submission to the North City Corporation, a community organization, proposed a re-examination of Temple's expansion plan, techniques for better university-community communications, and a plan for housing development for both the community and Temple.

1967 A student -sponsored workshop was held for community residents on the issue of university expansion. The residents declared their distrust of the university.

1968 A Temple University committee recommended 3000 new units of student housing to be constructed west of Broad Street and 2000 south of Columbia. The following year the university's "Housing Task Force" recommended instead dispersal of 2500 units throughout the nearby community.

1968 President Anderson and several board members met with community leaders to discuss development of a collaborative planning process. He promised university assistance to the community. He stated TU was "unlikely" to expand west of Broad Street.

1968 The "Harwood Report" was published. This was a university definition of ways in which Temple could organize to assist the local community and respond to its concerns.

1968 CURE was tentatively awarded a $250,000 grant by OEO to set up an advocacy planning agency in North Philadelphia. This was blocked by the city.

1969 A new campus master plan was prepared acknowledging pressures against further expansion.

1969 Residents of Norris Homes, a public housing project, east of the campus, protested against TU expansion plans wherein the university would completely surround them.

1969 A black student organization at Temple demanded that the university abandon all plans for expansion without approval of local black community leaders.

1969 President Anderson declared a moratorium on expansion until suitable methods of collaborative planning could be devised.

1969 The Temple-community charrette was held. It ended in a stalemate.

1970 The "Community-Temple Agreement" was signed. Temple conceded 13 acres to the community and agreed to other restrictions on development.

1970 A relocation policy was adopted.

BOSTON UNIVERSITY

CHARACTER SKETCH

Boston University is a private institution whose enrollment in 1970 was in excess of 16,000 full-time students. The university traces its origins to 1869 when it received its charter. But for most of its history the university functioned as a collection of semi-autonomous schools and colleges scattered throughout the city. In the mid-twentieth century two of BU's presidents took as their mission the consolidation of the university onto one campus. Although this task was not completed until 1966,[31] the new center of gravity was essentially established by 1940. The present campus of the university is located along the bank of the Charles River at the western end of the city's rather strung-out core. (See Map B-1). The campus, if the term can be properly used here, is also quite linear. The central portion of more or less completely contiguous land holdings is about a half mile long and four hundred feet wide. But other university buildings are distributed over an area of about a mile and a half by a quarter of a mile, with a variety of non-university functions intervening. (See Map Series B-4 and Map B-8). Moreover several major arteries of regional importance pass through or immediately next to the campus. This pattern is a result of BU's private status (i.e. no powers of eminent domain), plus several other factors which will be described later. The university's greatest visual amenity is its relationship to the Charles River basin, which at this location is lovely.

Boston University serves a regional clientele. Only about 5% of its students are native Bostonians.[32] Few students, therefore, live with their parents. Twenty-nine percent of BU's students live in dorms.

This leaves around 11,000 full and part-time students who must find private housing accommodations. Most of these live in nearby Cambridge, Brighton, Brookline, and along the trolley lines serving the metropolitan area. (See Table 34).

The University's relationship to the community is complicated by the fact that it's buildings lie in two municipalities: Boston and Brookline. Immediately to the north, across the Charles, is Cambridge, whose nearer neighborhoods are also affected by the presence of BU. (See Map B-2).

In order to understand the university's relations with its neighbors, one must know something of the unique character of metropolitan Boston. Since its beginnings the city has had a land shortage. Well over half of the land in central Boston has been reclaimed from the bay through landfill operations. Consequently the city is very densely developed. The number of tax-exempt institutions (educational, religious and government) in Boston is extremely high. It is estimated that around 45% of the city's land is tax exempt.[33] The resultant tax burden on the businesses and homeowners in the city is quite high. The 50-odd colleges and universities in metropolitan Boston are regularly and frequently criticized for their contribution to this situation. In fact the institutions of higher learning own something more like 1.5% of the city's land.[34] But the issue has become common folklore among Boston's taxpayers and the precise facts are not well known. Moreover, city politics in Boston still is well seasoned with 19th century rhetoric, and the universities are a good target in any campaign. This is partially the result of a pronounced class consciousness in the city related to ethnic origins. The Italians, the Irish and the "Yankees" know who they are. The universities (particularly Harvard and MIT) and their students are sometimes seen as a feature of the latter group. (While BU's students may not be properly classed as "Yankees", neither do they include many Boston Irish and Italians). Finally, as a result of its density, housing in Boston is quite expensive. (See Map Series B-17). Although not entirely with justification, the universities are frequently blamed as the main cause of this situation in some areas. In actual fact it is estimated that only around 5200 of the city of Boston's 222,000 dwelling units are occupied by university people, although in some areas the figure is about 8%.[35] But university districts also attract large numbers of young, transient singles employed elsewhere in the city, plus others whose life style causes them to be identified with students. In older neighborhoods real estate speculators have recently been quite active in buying large homes for conversion to small apartments for this market (at greatly increased rents). These rapid changes have caused

noticeable out-migration of families and older people from certain neighborhoods. (See Map Series B-14 and B-16). Another result has been vigorous student action in organizing rent strikes and other forms of protest against landlord and housing authorities.

Land use patterns in the Boston University district are quite mixed (See Map B-3). The University itself is bisected by Commonwealth Avenue, which at this point, is lined with region - serving commercial establishments. A large number of these are automobile dealerships or parts suppliers. Immediately behind these businesses (to the south) is a second line of large warehouse and industrial structures. The university has bought a number of these commercial and industrial structures as they have become available. They now serve as office and academic buildings. Immediately east of BU, Commonwealth Avenue is intersected by Beacon and other streets at a place called Kenmore Square. This area houses a very dense collection of student-oriented retail stores and entertainment facilities (See Map B-6),other retailers, a proprietary junior college, professional offices and apartments. It is a noisy, somewhat shabby, dreadfully congested place which also supports noticeable numbers of "street people".

Further to the east of the university and separated from it by a greenway and an elevated street lies Boston's Back Bay area. This is a rather elegant district (less so now than fifty-years ago) which once housed many of the city's first families. There are now quite a number of small private institutions in Back Bay, and most of its dignified town houses have been divided into apartments. But the character of the area has been rather well preserved and it is still a desireable place to live. Bay State Road which is projected right into the center of Boston University's campus from Back Bay has a similar character. The university has had a long standing policy of acquiring properties on this street whenever they come on the market. It now has most of its administrative offices and some of its residential accommodations and faculty offices in the old town houses there.

A major rail line forms the southern boundary of the main portions of BU's campus. In 1964 on the same right-of-way the Massachusetts Turnpike was completed. This is an eight lane depressed freeway that has introduced an extremely high noise level into the area. Between the turnpike and the "Fens", a long, meandering park to the south, are two tiny residential areas. Large numbers of people from BU and various other institutions across the Fens live in these rather characterless areas.

The "Town of Brookline", as it is officially called, adjoins Boston University on its southwest edge. It seems strange to call such a large, urbane place a "town". But there are very large areas of low density, expensive housing and the people of Brookline are militantly dedicated to the preservation of its lovely character. Although there are large numbers of apartments occupied by students and others (See Map B-5), Brookline retains the image of a professional class, family oriented area. It's visual character is very much like the Connecticut Avenue district of Washington. While Boston University owns several properties in Brookline, its attempts to expand in that direction have usually been met with strong resistance. Nor are resident students particularly welcome. Recently, Brookline attempted to zone out students by making it unlawful for more than two "unrelated individuals" to live in the same dwelling unit. This was quickly ruled unconstitutional, but the intent is a measure of the strength of feeling.

BU's western neighbors are Boston's Brighton and Allston district. These are the areas most heavily populated by students. (See Map B-5). They are difficult areas to describe because of their mixed land uses and confusing physical structure. The population is also mixed. Along with the students are working class and professional class people, homeowners and apartment dwellers and people of various ethnic backgrounds. (See Map Series B-10 through B-15).

Finally, across the Charles from Boston University lies Cambridge. Like Brookline, this is a separate municipality. There are three distinctly different areas in that portion of Cambridge opposite BU. On the east there is MIT's extremely large campus. Immediately to the northwest of MIT there is an industrial and warehouse district. Finally, there is a residential neighborhood called Cambridgeport which is packed with three story frame houses on tiny lots. The area is

almost exclusively a working class district, although there are some student tenants. The Cambridge riverbank itself is essentially parklike. It accommodates a high-speed boulevard, a number of apartment buildings, motels, industrial buildings and other uses frequently unrelated to their residential neighbors. (See Map B-3).

Looking at the BU district as a whole, one can see that it is quite different from the other two institutions examined. There is far more rental housing than at the other institutions (Map Series B-18). Surprisingly this is even true in Brookline. While the conditions of housing units is rather good, there was a noticeable decline from 1950 to 1960. (Map Series B-19).

The population around BU is quite diverse in terms of income, occupational and family status (See Map Series B-11, B-15, and B-14). The population is quite uniformly white, however, and well educated (Series B-10 and B-12). This is quite a contrast from the almost uniformly poor and black population surrounding Temple and the mixed groups near UC.

UNIVERSITY-COMMUNITY RELATIONS: FURTHER COMMENTS

In Boston "the universities" are frequently thought of as a general phenomenon. This is partially because of their numbers and partially because the student population resident in the community is not necessarily segregated according to the institutions they attend. Considering university-community relations in this general way over the past twenty years, there are four issues which have appeared and reappeared at regular intervals. These are:

1. The universities' exemption from property taxation.

2. Pressures on the private housing market caused by university people.

3. University growth and expansion (as an issue in itself and as it relates to the items above).

4. Parking and traffic problems allegedly caused by the vehicles of university people.

Two of these issues (taxation and housing) have been briefly discussed above. They are almost certain to be mentioned in any local election campaign. Except for a few isolated instances, however, there has not been a serious and thorough attempt by the city to really attack these problems. Consequently an historical review of university-community relations in Boston can leave one cynically to wonder if the issues are real. They may be seen more as an easy basis for propaganda rather than as problems to be solved. Perhaps the universities' responses have also become cynical as a result. The municipality becomes a defensive adversary rather than a partner. Administrators may become equally concerned with generating counter-propaganda as a means of weathering the current storm. Since the same controversies re-occur regularly, some actors on both sides soon gain enough experience to deal with them with a measure of wary confidence.

With the exception of the taxation issue, the problems listed above become quite real when one focuses on a single university and its immediate neighbors. Boston University is a typical case. Its growth has been rather slow in comparison to that of Temple and the University of Cincinnati. (See Table 40). But it is located in a very dense area. (Map Series B-16). Consequently an enrollment increase from 11,000 to 19,000 full-time students in 20 years has had a noticeable impact.

Consider, for example, that 30% of BU students drive an automobile to school.[36] The proportion of the 3,800 faculty and staff is doubtless much higher. The effect can be seen in Map B-7. Fortunately, BU is well served by an excellent and inexpensive transit system. Were this not the case, the parking situation would be far worse. Although not evident from the map, short term double parking on Commonwealth Avenue is also common. This causes additional problems at rush hour.

TABLE 34

NUMBERS AND LOCATIONS OF FULL-TIME STUDENTS RESIDING IN PRIVATE APARTMENTS, FIVE-SCHOOL SAMPLE

1968-69

	Boston College		Boston University		Harvard		M.I.T.		Northeastern		
	Under-graduate	Graduate	Under-graduate	Graduate	Under-graduate	Graduate	Under-graduate	Graduate	Under-graduate	Graduate	TOTAL
Boston	227		1,103	653			620		1,460		
Brighton	624		599	264	805		100		68		
Allston	157		514	217			70		20		7,501
Brookline	266		664	329	189		190		140		1,778
Cambridge	55		302	260	601	3,113	1,700		70		6,101
Other Communities	232		192	450	1,434		895		108		3,311
Boston Total[4]	674	334	2,216	1,134	153	652	205	585	1,084	464	7,501
Total Full-Time	1,000	561	3,374	2,173	1,167	4,975	916	2,659	1,866	800	19,491
	1,561		5,547		6,142		3,575		2,666		19,491

Source: Data obtained from the five scholls by a questionnaire distributed by The Urban Institute of Boston University.

Note: This table indicates those full-time students who maintain residence in apartments, which are not university-owned or managed, and not living with parents or guardians.

The table is reproduced from University Impact on Housing Supply and Rental Levels in the City of Boston, a Boston University Urban Institute Occasional Paper, prepared by Melvin R. Levin and Norman A. Abend; 1970.

TABLE 35

ON-CAMPUS HOUSING CAPACITY AND OCCUPANCY IN THE FIVE-SCHOOL SAMPLE
1968-69

Schools	Dorm Capacity (Male and Female)	Vacancies (Male and Female)	Number of Females on Waiting List	Number of Males on Waiting List	Total Number on Waiting List
Boston College	1,461	0	70	130	200
Boston University	7,105	N/A	N/A	N/A	N/A
Harvard	6,842	N/A	N/A	N/A	N/A
M.I.T.	2,243	0	N/A	N/A	N/A
Northeastern	4,030	0	150	50	200
Total	21,681	0	220	180	700

Source: Questionnaire

N/A: Not Available

Note: This table is reproduced from University Impact on Housing Supply and Rental Levels in the City of Boston, a Boston University Urban Institute Occasional Paper, prepared by Melvin R. Levin and Norman A. Abend; 1970.

In the fifties parking seems to have been a particular irritant to residents of the Bay State Road area. Moreover, a number of professional men had offices in this district. Because of their clients, the parking problem was of great concern. Obviously parking along Bay State Road is still a problem. But the university now owns a high proportion of the properties there. There are fewer people remaining to complain and they have probably long since resigned themselves to the situation. On the other hand, the residents of Cambridgeport feel there are more and more BU students parking on their streets and walking to school across the Charles. The president of the neighborhood association there was quite vocal about the problem. People in the nearer neighborhoods of Brookline have similar complaints. Map B-7 shows the affected areas in Cambridge and Brookline are more limited than the complaints had suggested. But within these areas the problem is severe.

The university has attempted to deal with the parking problem in two ways. In 1958 it instituted a policy forbidding students living within six miles of campus from driving to school. It also prohibited freshmen and sophomores living in dorms or fraternity houses from keeping automobiles at the university. These policies are no longer maintained. No doubt they were soon realized to be unenforceable. At the same time the university, as of 1968, provided about 1500 parking spaces. Two-thirds of these are designated for faculty and staff.[37] Even so, there is substantial overflow parking on local streets. A good deal of this is illegal, but enforcement by local police is normally not effective.

In spite of Boston University's large dorm capacity (See Table 35), the housing issue is also a major concern in the communities around it.

In the academic year 1968-69, 5,547 full-time BU students lived in private apartments in metropolitan Boston (See Table 34). The distribution of students in the immediate vicinity in 1970 is shown in Map B-5. The housing speculation and change which result from the needs of young, single people has been previously described. The communities of Brighton and Allston have been particularly upset by this phenomenon. Brookline residents are afraid changes of similar proportion will soon occur in their town. Cambridge has been dramatically altered as a result of university demands on housing. With both Harvard and MIT located there, and BU just across the river, it houses nearly as many students in private apartments as Boston (Table 34). A relatively small proportion of the students living in Cambridge, however, are BU students.[38]

In all of these communities there is resentment about the universities' effect on the rent structure and the conversion of units to accommodate students. As a part of this study, heads of four residential community groups were interviewed. Their concerns were nearly identical, although their perceptions of the complexity of the problem and its causes varied. Some blamed the universities and BU in particular for failure to house it's students on campus. Most implied the university was indifferent to community problems. Only two mentioned that responsibility for the impact on local housing had to be shared by real estate speculators and lending institutions. Only one discussed the phenomenon as a complex problem related to the city's housing situation in general. On the housing issue, if these interviewees are representative, Boston University's neighbors see the institution as insensitive and harmful.

It is interesting that these resentments over BU and housing have almost never flared up in open protests or disputes over a particular issue.[39] To a large degree this is probably related to the nature of the university's expansion. As mentioned above, BU's enrollment has not grown as rapidly as that of many universities. (See Table 40). Although it's physical growth rate has been fairly typical, the campus has always been dense (See Tables 44 and 45).[40] Moreover, most of it's expansion has been through purchase and conversion of scattered buildings as they have become available. The result has been a "campus" which is partially indistinguishable from its surroundings. (See Map Series B-9 and the photographs on Page 60). BU's physical growth, therefore, may have had very little impact on its neighbors. On the other hand, the university's method of acquiring land and buildings has led to suspicion in Brookline that it is covertly purchasing extensive amounts of property which will eventually be redeveloped.

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There is one final phenomenon which has recently added to the tension between the people of Boston and the universities. This is the new life style of many young people, particularly those who inhabit university districts. This problem is of course common nationally. But only in a very few cities has it become as visible as it has in greater Boston. The normal ingredients are present: distinctive personal appearance, drugs, relaxed sexual norms, dropouts, communes, etc. But with the high densities of students and kindred souls living in private apartments, the new life style has become a next door affair for thousands of "straight" Bostonians -- with all of the attendant collisions of differing values. A great deal of resentment and tension has resulted.

COMMUNITY RELATIONS PROGRAMS

Nearly all of the University's community relations efforts have been directed toward the city of Boston as a whole - its people and its government. This has been the result of the "cold war" between the city and it's universities. Moreover, as mentioned earlier, this effort has most commonly involved rather traditional PR tactics. Nonetheless, Boston University has played the game well enough. In 1968, for example, BU's President Christ-Janer chaired Mayor White's "Committee on the Urban University". This was a group charged with finding solutions to some of the mutual irritants -- particularly the taxation problem. Although the committee still exists, it is no longer active and no breakthroughs have been made.

As is commonly the case, many of BU's community relations efforts have originated in other units of the university than the administration. For example it's Urban Institute has undertaken considerable relevant research. Other academic units and faculty or student groups have provided various types of service to the community.

Boston University's efforts to work with it's immediate neighbors have been less noticeable. Probably the administration has not always been fully aware of it's impact on the area. Efforts at maintaining a good record in governmental relations have not been matched by even a good working knowledge of the adjacent neighborhood structure. For example, interviews with several BU officials concerned with university relations, governmental relations, and planning revealed that most were unaware of the existence of many of the local community organizations. Key individuals in these groups were equally unknown.[41] One must conclude from this that even efforts to project a good image at this semi-formal level have been minimal. As a result a good deal of misinformation and unjustified opinion regarding BU can be heard from local citizens.

Measured on the scale of community relations involvement outlined in the description of the University of Cincinnati (See Page 30), Boston University would have to be classified in category four or five.

PLANNING EFFORTS

During the 1950's and 60's the nationally accepted style of university physical planning might be more properly called "multi-building architecture." This is a very difficult practice for a university with BU's land acquisition problems. As a probable consequence, this university's physical development has been planned building by building.

The attempts to consolidate BU's colleges on the Charles River site gained real momentum in the late forties when the large central block of land was acquired. In 1956 President Case announced a $60 million development program. Three years later the first high-rise tower on the academic block was under design. A master plan prepared by the architects proposed three similar towers be built later on the same block. While the concept of high-rise development seems to have been tacitly adopted, the architects' plan was not. Around 1967 yet another architectural "Master Plan" was prepared. This called for high-rise towers on Commonwealth Avenue marking the eastern and western entrances to the BU area. This concept was rejected by President Christ-Janer, who favored a less visible campus.

Boston University's Planning Officer has been in that position since 1962. His responsibilities are primarily in the area of internal space planning. Under President Christ-Janer there was also created an office of Institutional Research and Planning. Its director, a special assistant to the president, worked to establish a planning procedure which could coordinate academic, fiscal and physical planning. So far these procedures have not been implemented, nor has a new comprehensive study of physical development.[42]

Of the three universities examined in this study, BU is the only one which has not been affected by urban renewal. Although the Boston Redevelopment Authority has been quite active for years, the Kenmore Square - Commonwealth Avenue area has not yet received attention. There are indications that this may happen soon. If so, it will be interesting to see how new concepts of planning will affect Boston University's development.

CHRONOLOGY OF EVENTS AT BOSTON UNIVERSITY: 1950-1971

1950 There was a lengthy public controversy over a proposal to reduce student transit fares to one-half full fares. The proposal was defeated in 1951.

1951 President Marsh retired. He had worked to consolidate the university on the Charles River campus. He was succeeded by Dr. Harold Case.

1953 The university purchased Braces (Nickerson) Field.

1955 A controversy developed between the editors of the university newspaper and the Boston Post over a faculty member who refused to testify in a state communism hearing. President Case said the student paper was too interested in "outside events".

1956 Construction was begun on a 9-story dorm on Bay State Road.

1956 The university acquired its first units of married student housing.

1956 A $60 million, 13 year expansion program was announced.

1957 Local residents complained about the parking problem. (This should be considered as a running issue which surfaces periodically in the press).

1958 The city of Boston complained about parking near BU. It urged the university to provide more off-street parking. The university banned students living within six miles of campus from driving to school. Underclass dorm and fraternity residents were told they could no longer keep cars at the university.

1959 The BU station on the Boston and Albany commuter line was closed because of scarcity of passengers.

1959 Architects for the new student union presented a master plan for the campus calling for extensive high-rise development.

1959 The first of three high-rise dorms was constructed on Nickerson Field.

1961 The Town of Brookline refused the university permission to build high-rise dormitories in a residential neighborhood.

1961 The university announced construction of a 350 car garage on Commonwealth Avenue.

1961 2,000 BU and MIT students demonstrated in Boston over events in Cuba.

1963 The Town of Brookline and the university joined in opposing construction of a new inner belt highway on an overpass through the area. They proposed a tunnel route. This controversy continued until about 1970 when plans for the inner belt were tabled.

1963 Two more high-rise dorms were built at Nickerson Field. Two others were being designed for 700 Commonwealth Avenue.

1966 Boston's traffic commissioner raised the parking issue again. He urged students to use mass transit.

1966 Consolidation of the university on the Charles River campus was completed (except for the medical and dental schools).

1967 The third high-rise dorm at 700 Commonwealth Avenue was completed.

1967 All sophomore students were told they would be required to live in dormitories. A sit-in resulted.

1967 President Christ-Janer succeeded Dr. Case.

1967 The property tax situation became an issue in the mayoral election campaign. (This had also been a running issue).

1969 The tax issue is revived. Dr. Christ-Janer was appointed chairman of mayor's Committee on the Urban University to investigate the problem.

1969 A student disturbance occurred over relocation of prior residents from a newly acquired university building.

1969 Boston police raided a BU dormitory in a narcotics search. Some brutality was alleged.

1970 A student demonstration in Kenmore Square over the Chicago Seven trial resulted in property damage to a bank and a police station.

1970 The Boston Redevelopment Authority made its staff available to work with expanding universities. Several months earlier it had previously issued a set of restrictive guidelines for university expansion.

1970 President Chris-Janer resigned.

1971 President John Silber was appointed.

CASE STUDY CONCLUSIONS

One of the most basic problems of this research study was the selection of universities for examination. The original prime criteria were that all institutions be approximately the same size (enrollment), and that they each fall into one of the three form categories described.[43] A nagging concern in the early months of the study was the unique set of characteristics, contexts, and problems of any institution which might be chosen. No way could be found to control these variations. As it has turned out, however, the special circumstances of Cincinnati, Temple, and Boston Universities have proved quite useful. They provide a wide range of situations which exemplify in detail more of the findings from the survey.

The differences between the problems of the three universities is obvious from the preceding descriptions. We discovered each of them faced tensions resulting from expansion. But these tensions have taken a different form in each case. At Temple, the fastest growing university, there was no overt response from the community until 1966. This is true even though large numbers of neighbors were displaced from their homes. But beginning in that year black communities in many cities began to directly confront the "establishment" with their concerns - frequently in anger. We have seen that this became the key feature of university-community relations at Temple.

The experiences of the University of Cincinnati, though less intense, had parallels to Temple. Neighboring residents did not organize to protest institutional expansion until about 1964. At U.C. the university was expanding in one direction -- into a community simultaneously facing a changing population and urban renewal tensions. The latter of these factors complicated U.C.'s relations with its neighbors as well as Temple's. Residents in both districts were simultaneously faced with changes induced by the university, the renewal agency on behalf of the university, and the renewal agency implementing other portions of it's plans. The confused reactions which sometimes resulted are understandable.

Boston University's neighbors have been faced with a different mode of institutional expansion, and have reacted in quite a different way. Being a private university with no powers of eminent domain, BU has been forced to acquire property to some degree wherever and whenever it became available. These acquisitions have been mainly commercial or industrial properties (except along Bay State Road), but the nature of the process has generated many rumors among neighboring residents. They are constantly alert to the possibility of the university moving closer. Whenever this becomes an imagined or real probability, the reaction is likely to be a complaint to the municipality -- already on record as being concerned about the universities. The confrontations therefore are indirect and rather more sophisticated than those described at U.C. and Temple.

Related to the expansion issue in Boston is that of off-campus housing. BU is located in an area with very high residential density. It's students seeking housing on the private market (along with those from a number of other institutions) cause a protective reaction from neighbors worried about speculation, housing scarcity and the strange life styles. Since very few Temple students live near the university (except in dorms), it has not experienced this problem. At Cincinnati there are quite a lot of students resident in the district, but housing scarcity has not reached the point it has in Boston. So far there has been no significant community reaction.

In greater Boston there are over fifty institutions of higher learning. They are a visible target for those protesting the high proportion of city land which is tax exempt. As previously described, this is a recurrent point of concern and frequently generates unsympathetic stances by the municipalities. Again, this problem has not been faced by either Cincinnati or Temple.

Crime statistics from Philadelphia and Boston were either unavailable or not in a suitable form for mapping. However, the data available indicates that the incidence of violent crime and theft in the Temple district is quite high. (See Page 47). This, coupled with apprehension about an unfamiliar and largely unknown neighborhood, causes many Temple people to be concerned about security and safety. At Cincinnati crime in the district is also considerably higher than in the rest of the city, but in most cases nowhere near the problem it is at Temple. Comment on this phenomenon at Boston University is not possible because of lack of data.

TABLE 36

UNIVERSITY-COMMUNITY TENSION AS DEFINED BY IRRITATING CONDITIONS PROBABLY INFLUENCED BY THE UNIVERSITY

		UC	TU	BU
1.	Increase in residential density	no, slight decline	no, slight decline	yes, slight
2.	Increase in housing cost	yes, slight	yes, slight	yes, considerable
3.	Increased diversity of land use	yes, slight	yes, slight	no change
4.	Increased traffic and congestion	yes, considerable	yes, considerable	yes, slight
5.	Increased parking demand	yes, considerable	yes, considerable	yes, considerable
6.	Increased auto accident rate	yes, considerable	yes, slight	yes, slight
7.	Increased crime rate	yes, considerable	yes, considerable	yes, slight
8.	Decline in housing condition	yes, slight	yes, slight	yes, considerable
9.	Decline in number of dwelling units	yes, slight	yes, considerable	yes, considerable increase
10.	Decline in retail business	no, considerable	yes, considerable	no, considerable increase
11.	Increase in number and size of community organizations	yes, slight	yes considerable	yes, slight

Finally there is the problem of parking. In this respect all three universities are alike. In fact virtually all of the institutions surveyed had rapid increases in parking demand. The neighbors of U.C., Temple and B.U. all complain about the overflow of university automobiles into their streets.

The experiences of the three universities can be compared in yet another way. In the survey of the larger sample of universities two aspects of university-community tensions were acknowledged: rather overt tension as reported by the university administrators, and the extent of tension-producing situations likely to have been influenced by the universities. Table 36 outlines these latter situations at the three schools under study.[44] Considering university-community relations in this way, Temple and its neighbors clearly have suffered most and those in the BU district least. Overt conflict and irritation as perceived by the parties involved are quite different matters. Moreover, intensities of tension can vary far more widely than the table indicates. Considering these factors as well as all of the documentation collected, it is more difficult to rank order the universities according to their problems. The experiences of Temple seem clearly enough to be the most severe, but tensions at UC and Boston have been expressed in such different ways that they are hard to compare. Consequently, it is better to examine particular situations in more detail and draw conclusions from them. This can be done by organizing the discussion in terms of the five original hypotheses.

HYPOTHESIS I:

University-community tensions vary with the size of the university and the size of the urban community.

In the survey this hypothesis was borne out. It was discovered that tensions were reported more frequently by schools with large enrollments, and by those located in larger metropolitan areas.

In examining the three case-study institutions one can define university size in a number of ways (See Table 37). In this study the size variable was controlled by selecting universities with generally equivalent enrollments. It can be seen that they are also roughly comparable in several other respects. Major differences in size are only noticed in the number of faculty, the number of academic departments and the land areas of the main campuses.

The cities in which these universities are located vary greatly in population. In the case-study comparison just as in the survey, that university (Temple) in the largest city was found to be faced with the greatest amount of tension. In the survey Temple reported "frequent" tension; UC and Boston reported "rare" tension. While it is difficult to judge the relative amounts of tension at Cincinnati and Boston, it is clear that BU's problems, more than UC's, have resulted from the pressures of existence in a large city (scarce, expensive housing, traffic density, etc.).

TABLE 37

UNIVERSITY & COMMUNITY SIZE MEASURES

	UC	TU	BU	Median for 102 Universities
UNIVERSITY SIZE (1970)				
Enrollment (FT day)	18,636	13,900	16,141	
Enrollment (FTE)	22,316	18,137	18,964	
Enrollment (total registration)	29,659	26,612	23,610	14,000
Faculty	1,085	1,478	1,827	
Total degrees awarded	3,911	4,911	4,360	N/A
Academic departments	100	59	94	41
Gross building area (sq.ft.)	4,627,132	3,648,793	4,643,554	N/A
Land area (acres)	152	72	59	250
COMMUNITY SIZE				
Metropolitan (SMSA) Population	1,384,851	4,817,914	2,753,700	932,000

N/A = Not Available

For this reason it is apparent that the importance of metropolitan population as a critical variable is reinforced.

The possibility of local community size as a variable should perhaps also be considered. It is impossible, however, to draw useful conclusions in this case. It can be seen from Map Series 2 that those distinguishable communities immediately adjacent to the University of Cincinnati are considerably smaller in area than most of those near the other two institutions. The populations in these areas are also smaller. However, the boundaries indicated are not in every case exact (notice Brighton and Allston in Boston, for example). Moreover, Temple University was for years surrounded by the largest community, as defined here, without significant overt tension. For these reasons the demographic characteristics of local communities and the degree to which they are organized are considered to be more significant. These are dealt with in relation to Hypotheses II and III.

HYPOTHESIS II:

University-community tensions vary with the size of identifiable population groups in the university district whose interests are generally not served by the university.

The survey gave conflicting evidence on this point. Respondents at those universities near poor or black communities reported no more tension than other institutions. Yet at the same time, they reported a higher incidence of those phenomena taken to be related to tension and probably influenced by the university (See Page 11).

In the case studies this question was approached somewhat differently. The universities were assumed to be largely populated with young whites from at least a middle income background and headed for a white collar environment. Certain demographic characteristics of the university districts were then studied. These characteristics are race, income, educational level, age, and occupation. Map Series 10, 11, 12,13, and 15 respectively provide detailed descriptions of the universities' neighbors in these respects. Where the greatest demographic differences from the university population exist, it is assumed that the neighbors' interests are least served by the university. Obviously conditions vary from time to time and from neighborhood to neighborhood even in one university district. Some areas are almost identical demographically to the assumed university population (because they are in fact student colonies), and some areas are distinctly different. Average conditions at each university in the most recent censuses, however, are outlined in Table 38. We see that in every respect Temple's neighbors seem quite different from the university population. Similar differences, although less pronounced, appear at Cincinnati. Boston University, however, is surrounded by well educated, reasonably prosperous whites. They differ significantly from the university people mainly in age. When one compares this tabulation to levels of tension, Hypothesis II seems to be confirmed. Temple's problems have been more severe -- particularly in terms of overt confrontation and tension -- producing phenomena. UC's difficulties in these respects rank second. In the case of Boston, however, citizens more typically confronted the neighboring university via city officials or agencies. Their cultural characteristics, as shown in the maps, suggest that BU's neighbors are more likely to be knowledgeable and subtle in handling essentially political issues. Latent tension levels, therefore, may be reasonably high, but issues are dealt with in less visible manners.

TABLE 38

POPULATION CHARACTERISTICS OF UNIVERSITY NEIGHBORS: DIFFERENCES FROM THE UNIVERSITY POPULATION

	UC	TU	BU
Race	different	very different	
Income	different	very different	
Educational Level	very different	very different	
Age	different	very different	very different
Occupation	different	very different	different

HYPOTHESIS III:

University-community tensions vary with the balance of power between the university and other groups within the community.

Evidence in the survey to support this hypothesis is not conclusive. Relative political power is very difficult to quantify. It was originally supposed that the greater the power imbalance, the greater the "tension-producing change in the community" since one party was free to impose it's action on the other. Temple's history prior to 1966 bears this out. It's expansion plans were

essentially unopposed by the community even though substantial numbers of people were relocated and many other tension-producing situations were present (See Table 36). On the other hand, when community groups began to multiply and become more active, overt conflicts became more frequent and intense. In short, one's interpretation of evidence relative to this hypothesis depends on one's definition of tension.

It should be noted before passing to the next hypothesis that Temple and the University of Cincinnati both possess a seemingly tremendous advantage in having power of eminent domain (both through their public status and through urban renewal). This more than any other single factor may have distinguished patterns of community-relations (and form) at these institutions from those at Boston University. Yet surprisingly the survey indicates that there is practically no difference in levels of tension at public or private universities.

HYPOTHESIS IV:

University-community tensions vary with the rate of change of activities of the university and of the community.

The survey findings suggest that change is a less significant correlate of tension than size factors. While data from the case-studies support the importance of metropolitan population size, they also indicate that change factors are very important. The institutions chosen have approximately equal enrollment - they were selected on this basis. Given this control, the figures in Tables 39 and 40 become significant. In these tables variations in the size factors of the university previously discussed are outlined over the twenty year period of the study. We can see that, measured in almost any way, Temple's rate of growth exceeds those of the other two institutions. It's physical development - the most visible aspect to the community - has been extraordinary. On the other hand, Boston University's development has been comparatively modest. Its physical growth ranked second, although it was much slower than Temple's. In all other categories, however, it changed least rapidly. These change rates vary with the levels of tension experienced by each institution.

In the survey community change was discussed only in terms of SMSA population. Case-study data, however, permits greater knowledge about changes in the districts surrounding the three universities. Based on the various computer maps included in the report, Table 41 shows where significant population and housing changes of various sorts have occurred. Again we find a strong correlation with levels of tension. Moreover, it is interesting to note that growing stresses in the housing market have been the principal changes around Boston University. Complaints about this and the resulting population displacement by BU's neighbors seem to have a factual basis. The changes at Cincinnati are of a different sort. Of the categories where significant changes occurred, only rent level has been identified as a potential producer of tension (See Table 33). Moreover, we can also see that in spite of racial change in the district, there were no corresponding changes in occupational status or levels of income and education. This is worth noting as evidence that there has been no general decline in the social status of UC's neighbors as other changes took place.

Case-study analysis of data relating to Hypotheses I through V indicates that size and change factors are significant tension correlates, and help explain, in particular Temple University's higher incidence of friction. Of equal significance is the presence of groups whose interests are not served by the university to any great degree. These conclusions will influence interpretation of the effect of spatial factors - the primary concern of this study.

TABLE 39

CHANGES IN UNIVERSITY AND COMMUNITY SIZE

UNIVERSITY SIZE	1950	1960	1970
Enrollment (FT day)			
UC	4,148	6,647	18,636
TU	5,850	8,027	13,900
BU	11,066	10,441	16,141
Enrollment (FTE)			
UC	7,177	9,777	22,316
TU	7,650	10,502	18,137
BU	15,520	14,276	18,964
Enrollment (total registration)			
UC	13,226	15,945	29,659
TU	11,178	15,451	26,612
BU	24,428*	21,946*	23,610
Median for 102 universities	5,200	7,750	14,000
Faculty*			
UC	297	465	1,085
TU	754	1,243	1,478
BU	1,128	1,730	1,827
Total degrees awarded*			
UC	1,770	1,537	3,911
TU	2,242	2,327	4,911
BU	3,732	3,172	4,360
Academic departments			
UC	72	81	100
TU	35	38	59
BU	70	83	94
Median for 102 universities	28	35	41
Gross building area (Sq.Ft.)			
UC	1,083,897	1,600,133	4,627,132
TU	613,936	1,183,578	3,648,793
BU	1,049,439	1,881,958	4,643,554
Land area (acres)			
UC	62	93	152
TU	7	24	72
BU	16	44	59
Median for 102 universities	100	145	250
COMMUNITY SIZE			
Metropolitan (SMSA) Population			
Cincinnati	1,022,000	1,268,000	1,384,851
Philadelphia	3,670,000	4,343,000	4,817,914
Boston	2,410,000	2,595,000	2,753,700
Median for 71 cities (locations of 102 universities)	370,000	540,000	630,000

* Total at all locations (all other figures for main campus only)
N/A = Not available

TABLE 40

RATES OF UNIVERSITY AND COMMUNITY GROWTH

		UC	TU	BU	Median for 102 Universities
UNIVERSITY SIZE					
Enrollment (total registration)	1950-60	120%	137%	90%	149%
	1950-70	224%	236%	96%	269%
Faculty	1950-60	157%	165%	153%	
	1950-70	365%	196%	162%	
Total Degrees awarded	1950-60	87%	104%	85%	
	1950-70	221%	219%	117%	
Academic departments	1950-60	112%	108%	118%	125%
	1950-70	139%	168%	134%	141%
Gross building area	1950-60	148%	193%	179%	
	1950-70	427%	595%	442%	
Land area	1950-60	150%	343%	275%	145%
	1950-70	247%	1029%	368%	250%
COMMUNITY SIZE					
Metropolitan (SMSA) Population	1950-60	124%	118%	108%	146%
	1950-70	135%	131%	114%	170%

Figures indicated are percentages of 1950 data.

TABLE 41

SIGNIFICANT COMMUNITY CHANGES 1950-1970

	UC	TU	BU
Social Factors			
Race (Map Series 11)	yes	yes	
Income* (Map Series 12)		yes	yes
Educational level* (Map Series 13)			
Age (Map Series 14)	yes	yes	yes
Family Status (Map Series 15)		yes	yes
Occupation (Map Series 16)		yes	
Housing Factors			
Residential density (Map Series 17)		yes	
Housing overcrowding (Map Series 18)		yes	yes
Rent (Map Series 19)	yes	yes	yes
Home ownership (Map Series 20)	yes	yes	
Housing condition* (Map Series 21)		yes	yes
Community Planning			
(Intensity of planning & renewal activity)	yes	yes	

* 1970 data not yet available

HYPOTHESIS V:

University-community tensions vary with the spatial distribution of the activities and structures of the institution and other groups in the district.

A number of descriptors of spatial distribution of activities and structures have been used. Originally the degree of concentration or dispersion of the university in its district was of greatest interest. The case-study institutions were selected on this basis. If the form types as described in fact represent points along an "openness-closedness" continuum, then there is marginal correlation between this aspect of form and tension. (Table 42 shows "openness" quantified, using the $\sqrt{A} / p$ ratio as previously described on Page 32). Although Temple had the highest level of conflict, it lies between the other institutions on the form continuum.

Similarly, no correlation was found between the visual strength of the campus edge and tension levels. This variable is described in Map Series 9 and Table 43. UC had by far the strongest visibility and BU the weakest.

TABLE 42

UNIVERSITY LAND AREAS AND "OPENNESS" RATIOS

		1950	1960	1970
UC				
	land area (acres)	62	93	152
	$\sqrt{A} / p$	.222	.194	.247
TU				
	land area (acres)	7	24	72
	$\sqrt{A} / p$	.063	.078	.073
BU				
	land area (acres)	16	44	59
	$\sqrt{A} / p$	.128	.063	.047

TABLE 43

AVERAGE VISUAL STRENGTH AT CAMPUS EDGE*

	1950	1960	1970
UC	7 (2-11)	8 (5-11)	11 (8-16)
TU	4 (1-7)	5 (3-8)	2 (0-5)
BU	3 (2-6)	2 (0-5)	6 (0-12)

*See Map Series 9 for derivation of indices. First figure indicates the average value. Figures in brackets indicate extreme.

Another measure of dispersion is the number of university people residing in private housing in the university district. In Map Series 5 all university residents are shown. But the dormitory occupants are easily discerned because of their on-campus concentrations. Here we find that very many Boston University people reside off-campus in the district. The numbers are fewer at Cincinnati and at Temple almost no one lives off-campus in the district. Again, this does not correlate with tension levels. Map Series 6 details patterns of off-campus retail patronage by university people - another measure of dispersion. The findings are the same.

Can one conclude from the above that the dispersion of university buildings in the district has nothing to do with university-community relations? Based strictly on the case-study examinations one would have to say yes. In the

survey, however, it was discovered that high tensions at the more open universities were slightly more common. Perhaps the large sample is a better indicator, but the degree of correlation is not dramatic. The distribution of activities, however, is another matter. At all universities student parking near the campus is an irritant. At Cincinnati the reorientation of retail facilities to the student market has caused resentment. In the case of numbers of student nearby private housing the survey showed a rather clear correlation with tension. That is, the more students living-off campus, the greater the incidence of friction. Looking again at the case-studies, the experiences of Boston University seem to reinforce this conclusion. One wonders if the same situation might exist at Temple if large numbers of students lived nearby. Since there is little acceptable housing in the district and since many Temple people are apprehensive about the surrounding areas, few have chosen to live there. Ironically while the presence of students in one district contributes to tension, in the other tension helps to keep them out.

As measures of university form, enrollment density and gross university building area per acre of campus land were examined. Although enrollment density was found to be a tension correlate in the survey, neither indicator is conclusive in the case-studies (See Table 44 and 45).

TABLE 44

ENROLLMENT DENSITY

	1950	1960	1970
UC	214	172	195
TU	1,610	643	370
BU	N/A	N/A	401
Median for 102 universities	52	54	56

Figures represent total registrations per acre of campus land.

TABLE 45

GROSS FLOOR AREA RATIOS*

	1950	1960	1970
UC	.40	.40	.70
TU	2.01	1.13	1.14
BU	1.51	.98	1.81

* Ratios of gross university building area to campus land area.

In the survey location of the university in the city and residential density in the surrounding districts were used as significant spatial descriptors of the community. In the latter case it was found that tension increased with residential density. Similarly, it was discovered that universities located in high density residential areas are experiencing more problems than those in or near central business districts or less dense residential areas. The case-studies bear this out. Table 46 summarizes average residential densities in each university district. We can see that densities at Temple are dramatically higher.

Summarizing the conclusions in this section and the analyses of data from each of the case-study institutions, it is now possible to discuss which variables best explain the problems faced by the universities.

TABLE 46

AVERAGE RESIDENTIAL DENSITIES IN THE UNIVERSITY DISTRICT

	1950	1960	1970
UC	35	35	25
TU	125	110	80
BU	60	50	45

Figures indicate approximate average persons per net residential acre. See Page 84 and Map Series 16 for further explanation.

In the case of the University of Cincinnati the "change" and "form" variables (Hypotheses IV and V) are most significant. The university experienced very rapid growth in the period from 1960 to 1970. For UC, like so many institutions in the sixties, this was an era of building. As the campus expanded, it moved only eastward, taking in its path substantial portions of the already small Corryville community. Simultaneously the city's medical complex expanded into Corryville from another direction. In spite of UC's significant involvement in the medical complex, planning for the two institutions were only loosely coordinated. The combined impact on the community was dramatic (See Map Series C-2), and triggered strong reactions.

Since this study is historical in nature, one can speculate on what might have been. The University might have contained its growth on the land it owned in 1960. The building and enrollment density figures for Temple and Boston Universities show this would have been possible. There would have been no complaints from Corryville about expansion in this case. However, the parking overspill and similar problems might have been more intense. If the university had acquired the same amounts of additional land, but distributed these acquisitions throughout several adjacent communities, Corryville's reaction might have been more potent. This is essentially the pattern of expansion Boston University has followed, however, and community reaction has been pronounced, but not overpowering. But BU has mainly been acquiring non-residential properties. The survey shows that expansion into such mixed-use areas is usually accompanied by lower levels of tension than expansion into residential areas.

The distribution of universities activities in the district is also an important spatial factor. At Cincinnati there are large numbers of students living in nearby campus housing. This has not caused much overt tension. It has affected rent levels, however. The effect might have been greater except for the fact that there were many available open sites for the construction of new apartments. These units have multiplied greatly since 1960 and house much of UC's expanded student population.

Similarly the overspill of parking and the growth of university oriented retailers are spatial phenomena which have influenced community relations. In the latter case a commercial district which once served its adjacent neighborhood is now largely oriented to the university. Another district is now filled with student oriented commerce where recently there were homes.

As a final comment on UC's expansion, the "announcement effect" should be acknowledged. The university led the Corryville community to believe that after its large property annexation in 1960, it would not subsequently acquire property east of Jefferson Avenue. When later it built one building and acquired another beyond that boundary, the resulting protest was no doubt stronger than it might otherwise have been.

University-community tensions at Temple University are less related to spatial factors. The size of the city, the extraordinary growth rate of the university, and the character and density of the surrounding population seem clearly the most critical variables. In order to have reduced the level of friction, Temple also might have considered more carefully it's expansion announcements. The

public statements of university officials at the beginning of the era of expansion, and the various boundaries projected by the planners (See Map Series T-4) indicated future expansion far beyond what actually occured. These projections are remembered even now by Temple's neighbors and form a basis for distrust.

There are two spatial factors at Temple worthy of mention. One is the pattern of university growth which eventually left the Norris Homes community surrounded by the university and an elevated railroad line. It has no longer any direct contact with the rest of the non-academic environment. As it turned out, a most vocal leader appeared in Norris Homes and this issue became one of the dominant points of discussion during the "charrette". The other factor is the peculiar neighborhood structure in the Temple district. There are few neighborhoods with clearly visible identity. Perhaps if this had not been the case, Temple's planners might have guided its growth in different directions. The university might also have found a network of community organizations with which to establish a better line of communication with the community.

Beyond the above, however, any actions taken by the university to allay tensions would have involved basic policies about expansion on the Broad Street campus. Perhaps the decision to focus continued growth there was not the proper one. In any case, Temple is not the only actor concerned with problems in its district. The city was rather heavily involved in renewal activity. The total clearance approach used in this action has come under repeated criticism elsewhere, and was bound to have caused problems in North Philadelphia. Moreover, in spite of this renewal activity, much of the area still remains a grim place. Continued sensitivity to these problems on the part of city officials and a greater commitment to their solution by the people of Philadelphia will be necessary for any dramatic improvement of the other issues described.

The tensions experienced by Boston University are related most closely to the nature of the city. The presence of so many other institutions and the adverse political environment frequently cause difficulties which are university issues rather than Boston University issues. The size of the city and the relatively high residential densities near BU are also factors which contribute to its problems.

The competition between students and others for apartments as magnified in the view of many Bostonians, is one of the most serious irritants in the community.

The parking situation, aggravated by BU's location in an intensely active part of the city, is a similar sort of problem. It is more severe here than at either of the other universities. Student domination of Kenmore Square, just east of campus, also produces some tension. This business district has become a center of gravity for many young "street people" who are perceived (rightly or wrongly) by local residents as students. Their life-style irritates the neighbors. All of these phenomena can be classified as spatial factors since they demonstrate spatial patterns of activities. Boston University's campus is also diffused in the community. There is no evidence, however, that this is clearly related to levels of tension. Where the university's outposts have touched residential areas, there has been some protest. This has occurred in Brookline and Back Bay. Yet these places are so close to BU that they would have been affected no matter what its campus form might have been. In other areas the university has grown into mainly non-residential areas. Perhaps this has kept its profile lower and reduced the adverse reaction of neighboring residents to its expansion.

The relationships between the five hypotheses and the experiences of the case-study universities are summarized in Tables 47 and 48. We can see that while form-related factors are not always the most critical correlates of university-community tension, they are significant. However, the measures are seldom architectural in nature. The process of physical change and its rate are far more critical than built form and campus layout. It appears that these, the patterns and distributions of university-activity, and density factors are the variables which the universities' planners should attempt to control if they wish to influence community relations. One can also conclude that those institutions located in high density residential areas are likely to experience more severe problems, and should therefore conduct their planning work with greater caution.

TABLE 47

CONFIRMATION OF HYPOTHESES BY CASE-STUDIES

	Hypotheses				
	1 (Size)	2 (Minority Groups)	3 (Power Balance)	4 (Change)	5 (Form)
UC	yes	yes		yes	yes
TU	yes	yes	yes	yes	yes
BU	yes	yes		yes	yes

TABLE 48

EXPLANATION OF TENSION AT CASE-STUDY UNIVERSITIES

	Hypotheses				
	1 (Size)	2 (Minority Groups)	3 (Power Balance)	4 (Change)	5 (Form
UC				yes	yes
TU	yes	yes	yes	yes	
BU	yes				

The purpose of this study is to provide information which will be helpful to university planners wishing to consider university-community tension as an aspect of their work. There are many other issues with which the planner must deal. The conclusions drawn in this report are offered with the knowledge that they must be coordinated with these other considerations, above all with the objectives of the institution. In many situations actions based on the conclusions alone might be partially or wholly inappropriate.

The documentation presented so far sketches a variety of situations where actions taken by universities have, as a side effect, irritated local residents. We have also seen , however, that the nature of the city and the areas around universities are frequently undergoing changes totally unrelated to the university. These changes, too, may result in university-community tensions. Urban institutions, by virtue of the fact that they choose to remain in the city, accept the fact that from time to time, they will live with such tensions. We believe, however, that friction of this type can provide the university with opportunities to respond in a manner beneficial both to themselves and their neighbors. Through such irritations the institution may become more sensitive to the aspiration of the community it does or should serve.

Another group of conclusions relate to the size of the university and its location in the city. We have seen that the institutions located in very dense residential areas experience more disharmony with their neighbors than those located elsewhere. We have also seen the correlation between enrollment and enrollment density with tension. Moreover, the additional land, parking and sometimes security costs faced by institions in intensely used portions of the city are well known to their administrative officers. We believe, therefore, that continued growth of the institution at one centralized location is a concept which in many instances is questionable. As a part of this study, the question of bases for decentralizing universities has not been examined. There has been no attempt

to determine points in university growth beyond which costs of various types begin to exceed the benefits of centralization. Perhaps this has been done by others - or will be. But the data analyzed in this study suggests there are reasonably predictable situations where continued university growth is likely to produce tensions with the community.

4: Procedures for Self-Study

One of the primary objectives of this study has been to acquaint university officials with a technique which they might employ to analyze the situation of their own institutions with respect to physical development and community relations. Deliberate planning in this regard can then procede from a better information base.

The theoretical base for this technique is detailed in Chapter 2 (Methodology). Certainly conditions at each institution will warrant changes to any analytical approach. There is, however, a great deal of benefit in comparative study of several universities. For this reason those wishing to undertake such a study may see an advantage to following the general approach used in this project. Hopefully within a few years enough institutions will have completed analyses to permit a comparison with a much broader and more valid sample.

DATA COLLECTION

The following is an outline of data needed for an analysis of the type demonstrated in this report. Several items have been added to those actually used. In most cases they represent items that were not available at one or more of our case-study institutions, or were not available in a useable form. In some cases items have been deleted as unnecessary.

This project is based on a historical approach. The various institutions were examined over a twenty year period. This is important for a number of reasons. It has given many university officials a better insight into the background of their school's development. Very few of them had been in their present positions for more than five years. The historical perspective has allowed the documentation of change. In a number of instances this has in itself been a significant variable. Finally, much of the data comes from the census, which facilitates such an approach. Data has been recorded for the years 1950, 1960, and 1970 because they are census years. It is expected that within a few months of this writing, complete census data for 1970 will be available both in printed form and on magnetic tape.

The following data items for 1950, 1960 and 1970 are used to document institutional size. All should be available in university records.

1. Full-time day enrollment on the campus under consideration. Care should be taken to sort out students on branch campuses, part-time and evening school students (unless in the latter category there are large numbers of full-time students).

2. Full-time equivalent enrollment. This was calculated as full-time enrollment plus one third of all part-time enrollment (day and evening). The count was restricted to the campus under study. Care should be taken to avoid duplicate enrollments.

3. Faculty size - full-time and part-time. Care should be taken to avoid duplicate listing of joint appointees and listing of emeriti, student assistants and faculty at other campuses. Although separate counts of full-time and part-time faculty are desirable, they were not available for 1950 and 1960 at some of the case-study institutions.

4. Staff size - full-time and part-time. This data was not available in consistent form at the three universities studied, but is needed to complete the picture of university population. Campus directories must be used with care since they normally list only those persons relying on a telephone and based in an office.

5. The number of academic departments and programs. These can be found in back issues of the university bulletin. Care should be taken to acknowledge name changes, departmental consolidations, and splits. Count only those departments on the campus under study. In this study only teaching departments were listed. Some institutions may also wish to examine the growth of research, administrative and service units.

6. Land areas in acres. Count those acres actually owned by the institution at the campus under study. Leased land may also be important, although it was not included in this study. Land held for investment purposes only or large agricultural tracts should be separated.

7. Gross square feet of university buildings. In this study buildings completed or under construction in any given year were included. Leased buildings were not included.

8. The number of students occupying university housing.

9. The number of faculty occupying university housing.

10. The number of degrees awarded. Include sub-totals for bachelors, masters, and doctoral degrees. Study-campus students only.

11. The number of parking spaces provided by the university. Include a description of any restrictions and fees.

The following items may be useful in analyzing relationships with the neighboring communities. Data for 1950 and 1960 will probably not be available.

1. Percentage of minority students, faculty, administrators, other staff. These should be counted separately.

2. Percentage of students and employees resident in the university district. Separate counts. See comments on the definition of district boundaries on Page 81.

3. Percentage of students from the immediate metropolitan area. This area is best defined by the Census Bureau's "Standard Metropolitan Statistical Area"

Community size is documented in two ways.

1. SMSA population for the three census years.

2. Population in census tracts (or portions thereof) falling within the university district. This data can be found in the tract and/or block tabulations of the census in 1950 and 1960. Consult local sources for available census data for 1970. Care should be taken to account for changes in tract boundaries and designations.

University-community history. This involves library research rather than statistical research. Sources will vary, but will probably include clippings from city and university newspapers (files of these may be maintained in the university library or public relations office). Other sources are documents in the offices of the campus planner or university architect, institutional research, the president and vice-president, campus security, the registrar, etc. All documentary data should form the basis for extensive interviewing as a check and for amplification. Appendix B of this report indicates the types of people likely to be helpful. In this study there was an attempt to speak with persons in positions of responsibility or with access to relevant information in the university, in the local community and in municipal government. Persons currently or previously in such positions were interviewed. The products of this work were the three narratives describing the case-study situations and the chronologies which follow

them. Items of particular interest are:

1. Growth, change, land acquisition and construction at the university.

2. Changes in university administration, policies, funding levels, funding sources, public-private status, etc.

3. The extent and nature of planning and renewal both in the community and in the university. Include university fiscal, academic and physical planning.

4. Incidents of university-community conflict. This should include not only overt controversies between organizations, but also latent resentments, suspicions, etc.

5. Incidents of favorable university-community interaction.

6. A description of community organizations by size, purpose, date of founding, membership, area served, leaders' profiles and their history of interaction with the university.

7. University budgets in 1950, 1960 and 1970 for security, public relations, instruction, and general administration. A comparison of rates of change may be of interest.

Much of the data needed for analysis is best recorded in map form. The maps prepared for this study are almost all presented at a scale of 1" = 1200'. The hand drawn base maps were prepared at a scale of 1" = 400' and then reduced photographically. The larger scale is easier to prepare and to display on walls; the smaller scale is more suitable for reports and for easy comparison. The authors urge that other institutions preparing such maps use the same scales for the latter reason.

The primary criterion for determining study area boundaries in this project was inclusion of all areas within walking distance of the edge of campus. However, other criteria caused adjustments. The Boston University area is much larger because of the extended cluster of students living southwest of the campus. It is important to include all areas strongly affected by the university. At Cincinnati the edges of the university district are partially defined by sharp breaks in topography. Other university areas may be defined by changes in land use, demographic patterns or other factors. Each case tends to be unique and judgements are best made by the persons conducting the study.

The specific maps required or useful are:

1. Base maps for the years 1950, 1960 and 1970. These show streets, railroads, buildings, and bodies of water. Buildings are solid black. This type map dramatizes the "texture" of the area and is useful in seeing the scale differences of activities in the area. These maps are used as a base for most other hand drawn maps. The latter were prepared as overlays and then combined with a photographic process in which the base maps were half-toned.

   Sources for the base maps are municipal maps. These are usually available at 1" = 100', 1" = 200' or 1" = 400'. They normally show streets, buildings, property lines and topographic contours. Aerial photographs may also be available from the city. Normally there will not be enough different editions of the maps to have them precisely for 1950, 1960 and 1970. This poses a problem even in areas which have not changed a great deal. In order to overcome this problem it is normally possible to find older maps and aerial photographs at the city planning commission or renwal agency, at historical societies, libraries, newspaper morgues and photo files, and at the offices of the university planner and public information officer. Even with this data there will be questions about when certain buildings or streets were added or changed. These must be resolved by inquiry or examination of tax records, Sanborn maps, old city directories, and university records. In cases where the most recent maps available are older than 1970, updating can be done by visual inspection.

2. Distinguishable communities (Series 2) for each year. These maps are largely judgemental. They should show approximate edges and foci of each area. Where the identity of an area is unclear in this study it is indicated by a question mark. In some cases there will be overlapping or incomplete boundaries. In some cases, such as in Boston and Philadelphia, communities may exist at two scales simultaneously.

3. Physical barriers maps (not included in this report) for each census year. These are used to help explain barriers to interaction between the university and other institutions and neighborhoods.

4. Land use maps (Series 3) will normally only be possible for the current year. Most city planning departments revise their maps periodically rather than making new additions. If these maps are only available for examination, but not distribution, they can be photographed using color transparency film. The slides can then be projected onto drawing paper at any scale.

5. University owned land and buildings (Series 4) for each of the three years. Data for these maps should be found in the office of the university planner or financial affairs officer.

6. Student and faculty residences (Series 5). These maps should be made for 1950, 1960 and 1970. They are based on a random 10% sample of addresses. Generally old student and faculty directories provide addresses. Other source are registrar, personnel and payroll records.

7. Public transportation routes for each data year. In this study these are shown in Map Series 5. Bus lines were not significantly used in these cases and were not recorded. Distinguish between subways and buses.

8. Maps of university retail patronage (Series 6). These maps must be produced for the current year by visual inspection. The maps in this report indicate a dot for every business which because of its name, location or the type of merchandise displayed obviously oriented itself primarily to the university market.

9. Parking maps (Series 7). This is done for the current year. The technique is to make two series of aerial photographs: one during a time when the campus is most fully occupied, the other on a university holiday, but a normal work day for neighboring residents. Avoid days where the weather or accumulated snow affects parking. The differences in the cars counted can be assumed to be the effect of the university. This process sounds expensive, but is not terribly so considering the cost of other methods. In this study most photography was done by members of the research team using standard black and white 35 mm film, and shooting from the open window of a high-wing aircraft. Care should be taken to shoot as vertically as possible so that buildings will not obscure cars. Parallel flight passes should be made in several directions to insure no obscured cars. Ask the pilot to fly at minimum altitude. Shoot at 1/500th using a haze filter if one is available. After examining proof sheets, selected shots should be enlarged to 11 x 14 for counting cars.

10. Functional zones of the campus (Series 8). These maps show a much smaller area than those of the university district. They are shown overlaid on a portion of the 1970 base maps and are reproduced in the report at 1" = 400'.

11. Edge character of the campus (Series 9). Also at 1" = 400'. There are several unusual elements in these maps. The edges along which each distinguishable community adjoin the campus are indicated by dashed lines. Arrows represent major approaches to or through campus. When a major route passes entirely along an edge, no arrow is shown. For each edge segment or major approach a total edge differential value has been given. These are calculated using the point system outlined in the map legends. The figures represent either: a) the total difference in visual strength between the campus side of an edge and the community side, or b) the total difference between an off-campus area a motorist has just passed through and the campus area he enters.

12. Traffic volumes and street capacities. This data was unavailable at all of the three cities studied, but it is considered to be quite important. Probably in those instances where it is available at all it will be possible to get only recent data. Traffic counts should be available from the city traffic engineer. Ideally there should be two sets of morning rush hour counts: one on a school day, and one on a normal business day when there is a school holiday. The difference in the volumes represents the load contributed by the university. Choose counts at locations along major approaches. These maps should also indicate (based on observation) points of particular congestion. Avoid counts taken on days when there is rain or snow.

13. Renewal projects, model cities areas, planning districts, etc. in 1950, 1960 and 1970. These can be incorporated with other maps.

14. Traffic accidents. If this data is available, map accidents by location.

15. Zoning for each study year. Include an explanation of zones.

16. Land values per square foot for each year. This data may be derived by sampling tax records or by consultation with the research departments of large realtors or the local real estate board.

17. Vacant and underdeveloped land at present. This can be based on visual inspection.

18. Schools and school districts in 1970. Both public and private schools at each level should be included.

19. Visual image for the current year. Follow techniques described in "Image of the City" by Kevin Lynch (MIT Press, 1960).

20. Narcotics arrests. This is based on police records. Map each incident by location of arrest. Use arrest rather than conviction records. Data will be available for recent years only.

21. Census tract boundaries for 1950, 1960 and 1970. This is a working document for preparation of computer maps. Boundaries and tract designations are subject to change. If these maps are not available at local libraries, planning offices, social service agencies, or the university's Department of Geography, contact the nearest US Commerce Department field office.

Many of the maps required to document conditons in the university district can best be produced by computer. This is true particularly when displaying demographic data or other data normally available in numerical form. The program used in this project is called SYMAP and was produced by the Harvard University Laboratory for Computer Graphics and Spatial Analysis. This is a fairly popular program which many universities may find in operation on campus. Other mapping programs are also adaptable to this type of analysis. Techniques for preparing useful hand-drawn maps for demographic data can, of course, be devised as well, although they will be more time consuming and perhaps more costly. Institutions wishing to use the SYMAP program may correspond with the authors for technical details and procedures.

The computer maps in this report are contour maps. Each progressively higher range of data values is shown in a darker tone contour band. Contours are based on interpolations between data points each located at the center of a census tract. Values at each of those points are read in from census figures. All data has beem translated into ratios, percentages or medians from absolute counts in order to sensibly spread values continuously across a spatial field.

The data sources for all computer maps in this report except for crime maps are tract datta in the U. S. Censuses of Housing and Population for 1950, 1960 and 1970. Crime data was supplied by police departments.

The specific computer maps required or useful are:

1. Percent of black population (Series 10). Negro population as a percentage of total population

2. Median family income (Series 11). Median income for families and unrelated individuals. Data is adjusted to 1967 dollars based on consumer price increases reported in the Statistical Abstract of the United States. At the time of printing this report, data for 1970 was not yet available.

3. Median years of school completed (Series 12). Data for 1970 not yet available.

4. Age (Series 13). In this study the percentage of the total population between ages 20 and 44 was mapped. The intention is to isolate the proportion of individuals who are because of their age more likely to be sympathetic to university students or who might have children for whom they have university aspirations.

5. Marital Status (Series 14). The percentage of the total population married and living with a spouse. This data permits one to better analyze the effect of single students living in the area and the degree of transience of an area.

6. Occupation (Series 15). The percentage of the civilian labor force employed in white collar jobs (professional, managerial, clerical and sales). Data for 1970 not yet available.

7. Residential Density (Series 16). Total population divided by residential acreage. Residential acreage is assumed to be total land area less all areas two acres or larger containing exclusively commercial, industrial, institutional or transportation uses as well as open space (developed or underdeveloped) not part of a residential parcel. Local streets adjacent to residential blocks are included in residential acreage. All other streets and expressways are excluded.

8. Housing overcrowding (not included in this report). The percentage of all dwelling units with 1.01 or more persons per room.

9. Median rent (Series 17). Median (or average for 1970) contract rents in 1967 dollars.

10. Percent of dwelling units renter occupied (Series 18).

11. Percent of sound dwelling units (Series 19). The percentage of all dwelling units which are sound and have all plumbing. In 1950 subtract "no private bath or dilapidated" from "number reporting". Data for 1970 not yet available.

12. Violent crimes per acre (Series C-20). Crime data for Boston and Philadelphia was not available in a form adaptable to mapping. These maps indicate total numbers of murder, manslaughter, rape and aggravated assault incidents per gross acre of land in each study year.

13. Non-violent crimes per acre (Series C-21). These maps show the total number of robbery, burglary and larceny incidents per acre in each study year.

ANALYSIS

Collection of the information outlined on the preceding pages can assist universities in several ways. First of all it permits clearer study of cause-effect relationships surrounding key events, trends and controversies in recent years. Second, administrators can evaluate the decision processes surrounding these events. They can also measure the effectiveness of the institutions to keep itself informed about the community and it's public relations activities. Third, the data collected allows an examination of changes over the past twenty years which often in themselves help explain town-gown tensions (See Hypothesis IV, page 2). Finally, by comparison with the situations of other universities described in this study, the institution is in a better position to project possible future relations with it's neighbors and to plan accordingly.[1]

The critical variables which were found in this study to relate to university-community tensions are outlined in Chapters 2 and 3. These should be used as points upon which to focus particular attention and as possible predictors in the absence of specific information to contradict them. The conclusions are based on what appear to be trends and tendencies (evidence from the survey) and detailed experiences of three particular institutions. The situation of each university, however, is unique. Analogies can only be drawn with considerable caution and appropriate qualification. As more and more schools address themselves carefully to the issues dealt with in this study, however, it will be progressively easier to make reliable analogies and predictions. Others are therefore urged to undertake similar studies and publicize their findings.

Footnotes

CHAPTER 1: METHODOLOGY

1. A university district is defined as: 3/4 mile from the outermost university buildings (15 minute walk); on case studies this is adjusted to acknowledge: physical barriers, jurisdictions, land uses, neighborhoods, student residence, census tract boundaries.

CHAPTER 2: SURVEY: THE EXPERIENCES OF 102 URBAN UNIVERSITIES

1. See Appendix A for a copy of the questionnaire. The questionnaire was mailed to all universities which are members of the Council of Graduate Schools of the United States, which have an enrollment of 5,000 or more, and which are located in metropolitan areas larger than 50,000. There were 129 questionnaires mailed and 104 returned. Two of these were received too late to be included in the tabulations.

2. This measure of tension is derived from Question # 7 of the mail questionnaire (See Appendix A).

   The following distribution of responses shows a high proportion of cases in the "rare" category. This is, of course, indicative of the general social milieu of that period. This limited variation in response does, however, reduce the potential for showing strong relationships in the several hypotheses.

   However, even with this qualification, meaningful relationships do occur, particularly the comparisons between a combined "frequent and severe" category and the contrasting "none".

   Frequency of University-Community Tension

	Responses	%
Severe conflict	5	5.0
Frequent tension	15	15.0
Rare	59	59.0
None	21	21.0
TOTAL	100	

3. This measure of tension is derived from Question # 5 of the mail questionnaire.

The analysis of responses to this question revealed the following subset as most important:

5d. traffic and congestion

5f. auto accident rates

5g. crime rates

5h. housing condition

5k. number and size of community organizations

Of these, increases in traffic, auto accidents, crime and number of community organizations, and a decrease in housing condition were considered to be tension-producing changes in the community.

Each university was then given a score for this subset, from zero to ten. These scores were distributed into three categories: high, medium, and low amounts of tension-producing change as follows:

Tension-Producing Change in the Community

	Responses	%
High	28	28.6
Medium	36	36.7
Low	34	34.7
TOTAL	98	

4. The size of the university was measured in a number of ways, all from data obtained from the mail questionnaire.

	Question
University enrollment 1970	1a.
University total population 1970	1a. & 1b.
University land area 1970	1e.
Number of University departments	2b.

These different measurements of university size were compared with each other and with the two measures of tension. From this analysis, enrollment was selected as the measure of university size for the purposes of this study.

A number of ways of dividing the sample into sets of high, medium and low were explored. Equal size sets were rejected in favor of dividing the total span of responses into thirds, because the latter seemed more indicative of real differences between subsets. This, of course, results in unequal numbers of responses in each set, as follows:

University Enrollment	Responses	%
High:		
35,000 to 46,000	3	
25,000 to 34,999	13	
	16	15.8
Medium:		
15,000 to 24,999	29	28.7
Low:		
5,000 to 14,999	54	
3,100 to 4,999	2	
	56	55.5
TOTAL	101	

5. 1960 census data was used to determine the metropolitan population for each city in which a university is located. The census employs the term Standard Metropolitan Statistical Area (SMSA) as the geographical basis for a metropolitan area. In this report metropolitan population is referred to as SMSA population and is used as the measured of community size. A continuous distribution of this data was plotted to determine the following five significant groupings:

SMSA Population	Cases
3,000,000 and over	15
1,700,001 to 2,999,999	20
900,000 to 1,700,000	18
300,000 to 899,999	23
Less than 300,000	26

For the purpose of the study, these groups were combined into three sets:

SMSA Population	Cases	%
High:		
more than 1,700,000	35	34.3
Medium:		
900,000 to 1,700,000	18	17.7
Low:		
Less than 900,00	49	48.0
TOTAL	102	

6. The percentage of low-income families in the surrounding communities was determined from question # 6a of the mail questionnaire. The following three subsets of fairly equal size were formulated.

		Responses	%
High:	20% to 100%	26	32.9
Medium:	5% to 19.9%	27	34.2
Low:	0% to 4.9%	26	32.9
	TOTAL	79	

7. It is important to remember that this data represents university administrators' answers to the question. In some cases it may be based on an impression, in other cases on actual census data. In any case, the large number of no responses, 23 out of 102, is in itself significant.

The percentage of minority families in the surrounding communities was determined from question # 6b. The following three subsets were identified.

		Responses	%
High:	0 to 15%	31	33.0
Medium:	5 to 14.9%	28	29.8
Low:	0 to 4.9%	35	37.2
	TOTAL	94	

8. The number of university actions prevented or impeded by neighboring groups was derived from question # 9 c (l) of the mail questionnaire. (See Appendix A). The sample was divided into the following three sets.

		Responses	%
High:	2 or more	21	23.1
Medium:	1	17	18.7
Low:	0	53	58.2
	TOTAL	91	

9. Change in the number of community organizations is taken directly from Question 5 k of the mail questionnaire. (See Appendix A). Since there were virtually no instances of fewer organizations, the three categories of change, slight increase, and considerable increase were utilized.

	Responses	%
Considerable increase:	32	34.8
Slight increase:	47	51.1
No change:	13	14.1
TOTAL	92	

This was then compared with the "Frequency of University-Community Tension" in Table 12, and with a modified tabulation of "Tension-Producing Change in the Community" in Table 11. For the purpose of this one table, change in number and size of community organizations was eliminated from the full set of five variables previously used. (See Footnote 3).

10. Census data was used to determine the percentage population increase of each SMSA from 1950 to 1970. The sample was then divided into three relatively equal size subsets as follows:

Growth rate		Cases	%
High:	60% or more	37	36.7
Medium:	35 to 59%	30	29.6
Low:	less than 35%	34	33.7
	TOTAL	101	

11. The percentage increase in enrollment 1950 to 1970 was calculated from data given in response to Question 1 a in the mail questionnaire. The sample was then divided into three subsets as follows:

Growth rate		Responses	%
High:	200% or more	32	34.1
Medium:	80% to 199%	30	31.8
Low:	Less than 80%	32	34.1
	TOTAL	94	

12. The percentage increase 1950 to 1970 in university land area was calculated from data given in response to Question 1 e of the questionnaire. The sample was then divided into three relatively equal size subsets as follows:

Growth rate		Responses	%
High:	100% or more	29	33.0
Medium:	15% to 99%	30	34.0
Low	Less than 15%	29	33.0
	TOTAL	88	

13. 1970 university land area was given in response to Question 1 e.

14. University administrators' perceptions of change in residential density in the university district were given in answer to Question 5 a in the questionnaire. (See Appendix A): These responses have been combined into the following three categories.

	Responses	%
Increase	72	73.5
No change	7	7.1
Decrease	19	19.4
TOTAL	98	

This information must be considered approximate at best because there is a natural tendency to confuse change in the number of dwelling units with change in residential density.

15. Data about actual intensity of land use was unavailable for the entire sample of universities. However, for thirty-eight universities in large metropolitan areas, data about residential density was available in Urban Atlas: Twenty American Cities: Passoneau and Wurman; MIT Press. Densities indicated in the tables are average residential densities with 3/4 mile of the edge of campus.

These thirty-eight universities were grouped into four subsets as follows:

Residential density	Cases	%
High	3	7.9
High-medium	11	29.0
Low medium	17	44.7
Low	7	18.4
TOTAL	38	

16. Enrollment density is defined as 1970 enrollment divided by 1970 land area. These data are found in Questions 1 a and 1 e in the questionnaire. An enrollment density for each university was calculated and the sample divided as follows:

Enrollment density (Students/acre)		Responses	%
High:	more than 80	35	34.6
Medium:	30 to 80	34	33.7
Low:	Less than 30	32	31.7
	TOTAL	101	

17. The number of university students who live off campus within 3/4 mile of the campus were calculated from Questions 2 a and 1 a. This was determined for each university and the sample divided into three subsets:

Numbers of students		Responses	%
High:	more than 3,000	32	36.0
Medium:	701 to 3,000	28	31.4
Low:	700 or less	29	32.6
	TOTAL	89	

18. These form types are described in some detail in Question 4 of the mail questionnaire. The sample is distributed between the six form types as follows:

	Responses	%
Rigid superblock	33	32.4
Visually indistinct superblock	8	7.8
Campus penetrated by traffic arteries	45	44.1
Campus penetrated by non-university uses	10	9.8
Disconnected campus in non-university area	0	0
Other	6	5.9
TOTAL	102	

These subsets were compared individually and in various combinations with the measures of tensions and other variables. Results are obviously affected by the uneven distribution of cases. For the purposes of this report, the sample has been combined into two categories. Closed form universities include types 1 and 2 above -- both superblock types. Open form universities include types 3 and 4 above -- both penetrated by non-university activities.

	Cases	%
Closed form	41	42.7
Open form	55	57.3
TOTAL	96	

CHAPTER 3: CASE-STUDIES: THREE UNIVERSITIES AND THEIR NEIGHBORS

1. See, for example, A College in the City: An Alternative: Clinchy, Evan, et al; Educational Facilities Laboratories, Inc., New York.

2. Originally it was intended that there be five case-study campuses, each corresponding to one of the form types sketched in question 4 of the questionnaire (See Appendix A). However, in an earlier survey only two of 176 respondents indicated their university had its buildings "distributed throughout a district devoted substantially to other activities." The superblock campus with "visually indistinct" edges was also dropped. None of the eighteen institutions falling into this category met the other criteria for selection.

3. 1970 figures

4. This complex is frequently called the U.C. Medical Center since it operates a medical school on the site and shares in the administration of a number of the hospitals. In this study, however, it has not been included as a part of the university because it functions autonomously in most ways, and because its image and relationship to the community are quite different from that of the university proper.

5. The chairman of the planning commission at the time was Dean of the College of Applied Arts at U.C. His building was that only recently constructed on park land at the northern extremity of the campus.

6. The well publicized case of Hyde Park-Kenwood in Chicago was used as an example of such a cooperative project.

7. Another six-lane artery was about to be constructed along the northern edge of the campus as part of a major new east-west thoroughfare across the city.

8. Major factors in the decision were the conflicting plans for Corryville and the Medical Center, a desire for a location convenient both to UC and the hospitals, bad soil conditions on alternate sites, and the wishes of the major donor of the building. The university looked upon the College of Nursing as an extension of the Medical Center. No promise had been made limiting expansion there. However, prior to preparation of its plan for the medical complex the university had been told by the urban renewal staff that the site should remain a residential area and should not be rezoned for university use. The plan did not reflect that decision.

9. An unfortunate side effect of the university's effort to stay within its boundaries by raising density.

10. A chronology of specific events connected with the issues described in this narrative and other issues can be found on Pages 41 through 43.

11. This is a very rough estimate. The total university general administrative budget in that year was $2,044,358. Total university expenditures on community relations activities were around $130,00 (also a rough estimate).

12. Only those programs aimed primarily at immediate neighbors are included. Many others focussing on the city as a whole also exist.

13. Most of the maps were prepared by computer using a program called SYMAP. The program interpolated between data points at the center of each of 14 census tracts producing contoured data levels. An explanation of the data levels is shown with each map. Definitions of measurements are provided on Pages

14. These maps indicate levels of violent and non-violent crime per acre. Violent crimes include murder, manslaughter, rape, robbery, and aggravated assault. Non-violent crimes include burglary, larceny theft and auto theft. The data is taken from census tract statistics in the annual reports of the Cincinnati Police Department.

15. A = land area; p = perimeter. Areas are calculated in square feet. For any given shape the ratio is a constant regardless of area.

16. This data was compiled from two sets of aerial photos. One was flown on a business day when the university was closed, the other at a peak class period. The map represents the difference in cars observed on the two flights.

17. This data was taken from census documents. The 1970 census did not include building condition information. It will be published in 1973 after a separate census.

18. In addition there are branch campuses a mile north on Broad (medical) and in suburban Tyler and Ambler.

19. The most noticeable exception to this is an area of about 16 square blocks immediately southeast of Temple where extensive clearance and redevelopment has been undertaken. Here the new population contains a high proportion of middle income black families.

20. This assessment was based both on the quality of individual dwelling units and the qualities of the residential environment.

21. See, for example, Russell Bourne: "New Jobs for Colleges", Architectural Forum; January 1959.

22. At about this time many urban universities were beginning to take similar advantages of the opportunities provided by Section 112 of the Housing Act of 1949.

23. Peter Binzen: "Tenement Section would be Transformed into a Vast Area of Learning", The Sunday Bulletin, Philadelphia, June 5, 1960, Section 2, VB, p. 1.

24. The western limit was reset at 16th Street, reducing the area to about 106 acres.

25. An arrangement with some similarities to "planned unit development" ordinances commonly used today in residential areas.

26. Also, although Philadelphia had a renewal program with many projects throughout the city, its planning director, a distinguished national figure, was most absorbed personally with downtown renewal. This too, was typical of the times.

27. The extent to which Temple is directly responsible is unclear. During these years there was considerable population mobility in the area as a result of racial change. Others doubtless moved prior to actual displacement by university growth because they saw what was coming or because landlords facing eventual purchase quit maintaining property. In any case the combination of urban renewal and institutional expansion accelerated the process.

28. Crime statistics for this area are not in a form suitable for mapping. Nonetheless the increases in crime in most of the district are known. The table below outlines the rates of violent and non-violent crimes and compares them with the area around the University of Cincinnati.

	Non-Violent Crimes per Acre	Violent Crimes per Acre
1950	.17 to .43 - about 20 times the rates at Cincinnati	.13 to .30 - about 20 times the rates at Cincinnati
1960	.93 to 2.40 - about 5 times the rates at Cincinnati	.73 to 2.11 - about 50 times the rates at Cincinnati
1970	.80 to 2.40 - about the same as Cincinnati	.60 to 1.75 - about 10 times the rates at Cincinnati

These figures are based on records from the two police departments.

29. Many of these participants were ill informed on the issues and problems to be considered. This was a key reason for the eventual failure of the "charrette."

30. In particular:

"Charrette # 4": Temple University Office of University Relations, December 19, 1969.

"A View from the Outside: The Temple-Community Charrette": Professor William E. Perry, T.U. School of Social Administration, 1971.

"The Planning Consultant as Advocate in a Black Community:" Victor H. Wilburn, Philadelphia, 1971.

31. Except for the medical and dental schools which will remain in Boston's South End - about a mile and half away.

32. As estimated by Katherine H. Hanson, Planning Information Coordinator.

33. According to Professor Morton Baratz of Boston University.

34. ibid.

35. Levin and Abend: University Impact on Housing Supply and Rental Levels in the City of Boston: Boston University, 1970.

36. Bruce, Susan R.: Housing Questionnaire Analysis; Boston University Office of Institutional Research and Planning, 1971.

37. One of the student parking lots is located two blocks beyond BU's western-most buildings. This is a handy location for dorm residents, but not commuters, since the academic buildings are concentrated near the center of the campus.

38. An analysis of student addresses in 1970 indicated 1,327 full and part-time students living in Cambridge.

39. There were two cases when it did -- both in Brookline. In one instance in 1960 the university proposed to build high rise dormitories on a site it owned in Brookline. The zoning variance necessary for this was finally not granted after long debate. The other case, previously mentioned, was the town's recent attempt to prohibit more than two unrelated individuals from sharing an apartment. This was a thinly veiled attempt to control the town's student population. The ordinance was promptly challenged as discriminatory and ruled unconstitutional in court.

40. In 1959 an architectural master plan was commissioned in conjunction with the design of two new buildings. This plan urged the university to adopt a policy of high-rise growth. All subsequent construction has been of this type.

41. Also, in spite of the university's interest in governmental relations, the authors were unable to discover from BU planning officials the names of key personnel in local planning and renewal agencies.

42. The Director of the Office of Institutional Research and Planning resigned in 1971. Subsequently President John Silber, who was apppointed earlier that year, abolished the OIRP and created an Office of Planning, Budgeting and Information Systems. In the memorandum announcing it's functions only fiscal and educational planning are mentioned.

43. Also selected were institutions with at least a twenty year history of growth, with plans for future development, and whose officers saw potential benefit from the study.

44. Responses to the various questions are those of the questionnaire respondents at the three institutions except where adjusted to reflect conditions documented in census tabulations.

CHAPTER 4: PROCEDURES FOR SELF-STUDY

1. In this respect, those institutions undertaking a self-analysis will also want to complete the questionnaire used in this study in order to compare their situations with those of the larger sample of respondents. The questionnaire can be found in Appendix A.

Appendix A: Questionnaire and Survey Sample

As mentioned elsewhere, the questionnaire included in this appendix was mailed to 129 urban universities. There were 104 responses, of which 102 were received in time to be analyzed. All universities receiving questionnaires were members of the Council of Graduate Schools in the United States. They all had enrollments of 5,000 or more and were located in metropolitan areas larger than 50,000.

The institutions for which data are tabulated are:

University of Akron
University of Alabama
American University
Ball State University
Baylor University
Boston College
Boston University
Brigham Young University
Brooklyn College
Brown University
California State College at Fullerton
California State College at Hayward
California State College at Long Beach
California State College at Los Angeles
University of California at Berkeley
University of California at Irvine
University of California at Riverside
University of California at Santa Barbara
Carnegie-Mellon University
Case-Western Reserve University
Chicago State University
University of Chicago
University of Cincinnati
University of Dayton
University of Denver
University of Detroit
Drake University
Duquesne University
Emory University
Florida State University
University of Florida
Fordham University
Fresno State College
Georgetown University
The George Washington University
Georgia Institute of Technology
Georgia State University
University of Georgia
Harvard University
University of Hawaii
University of Houston
Howard University
Illinois State University
University of Illinois
Indiana State University
Kent State University
University of Kentucky

Lamar University
Long Island University (Brooklyn Center)
Louisiana State University
University of Louisville
University of Maine at Orono
Marquette University
University of Maryland
Massachusetts Institute of Technology
Memphis State University
University of Mexico
University of Miami
Michigan State University
University of Michigan
University of Minnesota
University of Missouri at Kansas City
Montclair State College
University of Nebraska at Lincoln
University of Nebraska at Omaha
University of Nevada
State University of New York at Buffalo
Northeastern University
Northwestern University
University of North Carolina at Greensboro
Ohio State University
University of Pennsylvania
University of Pittsburgh
William Marsh Rice University
Roosevelt University
Sacramento State College
Saint Louis University
San Diego State
San Fernando Valley State College
San Francisco State College
University of San Francisco
San Jose State College
Seton Hall University
University of South Carolina
University of Southern Mississippi
Stanford University
Syracuse University
Temple University
Texas Christian University
Texas Southern University
Texas Technical University
University of Tulsa
University of Utah
Vanderbilt University
University of Washington
Washington University (St. Louis)
Wayne State University
Western Michigan University
Wichita State University
University of Wisconsin at Madison
Xavier University
Yale University

The geographical locations of those universities experiencing frequent or severe tension with their neighbors, and those experiencing no tension is quite interesting (See Map G-1). All of the high tension institutions are located in the northeastern portion of the country or in California. A high proportion of those reporting no tension are Southern universities.

UNIVERSITY OF CINCINNATI
Department of Community Planning

UNIVERSITY-COMMUNITY RESEARCH PROJECT

Can you please provide us with the following information about your university (do not include branch campus data):

Name and address of your university _____

_____

_____

Name and title of person responsible for physical planning _____

_____

1a. What was your university's approximate enrollment in:

1950 _____ 1960 _____ 1970 _____

b. Approximate full-time faculty and staff size in 1970-71 _____

c. Approximate number of students living in housing owned by the university in 1970-71 _____

d. Approximate number of faculty and staff living in housing provided by the university in 1970-71 _____

e. Approximately how many acres of land did the university own in:

1950 _____ 1960 _____ 1970 _____

f. About how many miles is the center of your campus from the center of the city? _____

2a. Approximately what percentage of the university population live within 3/4 mile of the edge of the campus in housing not owned by the university?

_____ % students _____ % faculty & staff

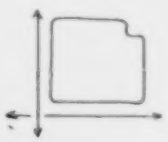
b. About how many academic departments were there in:

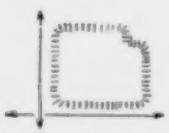
1950 _____ 1960 _____ 1970 _____

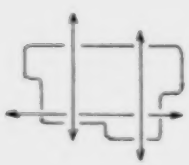
3. About how many new buildings did your university build during the following periods?

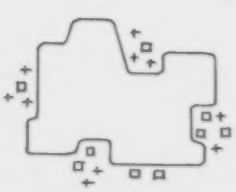
1945-50 _____ 1950-55 _____ 1955-60 _____ 1960-65 _____ 1965-70 _____

4. Which of the following patterns most closely describes the form of your university?

_____  A rigid, distinctly bounded "superblock" exclusively devoted to university activities.

_____  A "superblock" whose edges are visually indistinct because of similarities between the university and its surroundings.

_____  A concentrated campus, but penetrated by major through arteries.

_____  A relatively concentrated campus, but penetrated substantially by private services and activities.

_____ A university whose buildings are distributed throughout a district devoted substantially to other activities.

_____ Other (Please sketch and describe)

5. In the past 20 years in your university district (the campus plus a 3/4 mile wide surrounding area) do you think there have been changes in:

		considerable increase	slight increase	no change	slight decline	considerable decline
a.	residential density					
b.	housing cost					
c.	diversity of land uses					
d.	traffic and congestion					
e.	parking demand					
f.	auto accident rates					
g.	crime rates					
h.	housing condition					
i.	number of dwelling units					
j.	retail business					
k.	number and size of community organizations					

6a. In the years indicated, approximately what percentage of the non-university families living within 3/4 mile of the edge of campus would you estimate had incomes (in 1970 dollars):

	1950	1960	1970
over $ 10,000	_____	_____	_____
$ 4,000 to $ 10,000	_____	_____	_____
under $ 4,000	_____	_____	_____

b. Approximately what percentage of the non-university population living within 3/4 mile of the edge of campus would you characterize as members of minority groups? _____

7. Has your university experienced tensions with neighboring residents during the past 20 years?

Yes, quite severe conflict _____

Yes, frequent tensions _____

Yes, on rare occasions _____

No _____

8. Since 1950, about how many urban renewal, neighborhood development, model cities or similar projects have been inaugurated in (or partially in) the university district (3/4 miles radius)? _____

9a. What kinds of university activity have generated good will in neighboring communities? _____

_____

_____

b. What kinds of university activity have generated ill will in neighboring communities? _____

_____

_____

c. In the past 10 years about how many times was some intended university action prevented or seriously impeded because of pressures by

(1) neighboring groups? _____ (2) the municipality? _____

d. About how many people at your university are assigned the responsibility for receiving complaints of one sort or another from the community? _____

10. In the past 10 years has communication between neighboring community groups and the university administration been primarily

a. regular and continuous _____ or as issues arise _____

b. formal _____, casual _____ or strained _____

c. mutually satisfactory _____, frustrating to the university _____

frustrating to a community group _____, or mutually frustrating _____

11. Can you please enclose a map of your campus with this questionnaire.

We appreciate very much your help. If you are interested, we will be pleased to inform you of the results of our study.

12/6/71

Appendix B: Case Study Data Sources

PERSONS INTERVIEWED CONCERNING UNIVERSITY-COMMUNITY RELATIONS AT THE UNIVERSITY OF CINCINNATI

MR. WILLIAM JENIKE, Associate Vice President for Planning, University of Cincinnati.

MR. RICHARD BAKER, former Associate Vice President for Community Relations, University of Cincinnati.

MR. RICHARD WHEELER, a member of the architectural firm preparing the university plan in 1960.

MR. HERBERT STEVENS, Director, Cincinnati Planning Commission.

MR. CHARLES STAMM, past Director, Cincinnati Redevelopment Department.

MR. PETER KORY, former Director, Cincinnati Redevelopment Department, and active in the Avondale-Corryville project.

REV. BENJAMIN WARD, past President, Corryville Community Council.

MR. HARRY SKIFF, resident of Fairview-Clifton Heights, and active in that neighborhood's Civic Association.

PROFESSOR ROBERT COOK, Clifton resident.

PROFESSOR BRUCE GOETZMAN, Corryville property owner and resident; active in the Corryville Community Council.

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PERSONS INTERVIEWED CONCERNING TEMPLE UNIVERSITY-COMMUNITY RELATIONS

MR. JOHN McKEVITT, Associate Vice President for Campus Planning, Temple University.

MR. WILLIAM G. WILLIS, Vice President and Secretary, Temple University.

DR. MILLARD GLADFELTER, Chancellor and Past-President, Temple University.

MR. CHARLES METZGER, Director of the Business Office, Temple University.

DR. HERMAN NIEBUHR, JR., Associate Vice President for Urban Affairs, Temple University.

MR. LEE MONTGOMERY, Office of Urban Affairs, Temple University.

MR. JAMES SHEA, Vice President for University Relations, Temple University.

DR. WILLIAM PERRY, Professor, School of Social Administration, Temple University.

MR. MARVIN GERSTEIN, Office of Campus Planning, Temple University.

MR. HOWARD KRASNOFF, Director of Architectural Services, Temple University.

MR. JAHAN SHIEKHOLESLAMI, Department of Architectural Services, Planning Office, Temple University.

MR. RONALD TURNER, Nolen-Swinburne Associates, Planning Consultants.

MR. L.W. REAVES, civic leader and insurance executive, North Philadelphia.

REV. DR. WILLIAM GREY, Pastor, Bright Hope Baptist Church.

MR. JAMES WILLIAMS, former president, Citizens Urban Renewal Exchange and Director of the Philadelphia Tutorial Project.

MR. VICTOR WILBURN, Architect and consultant to various North Philadelphia organizations.

MR. DAMON CHILDS, Executive Director, Philadelphia City Planning Commission.

MR. LAWRENCE MORRISON, Philadelphia City Planning Commission.

MR. TED THORN, Philadelphia City Planning Commission.

MR. IRA DAVIS, Philadelphia Redevelopment Authority.

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PERSONS INTERVIEWED ABOUT BOSTON UNIVERSITY-COMMUNITY RELATIONS

MRS. GLADYS HARDY, former director, Office of Institutional Research and Planning, Boston University.

MR. PETER VAN AKEN, Office of Planning, Budgeting and Information Systems, Boston University.

DR. STUART GROUT, Director of Academic Planning, Boston University.

DR. DANIEL FINN, Vice President for Business Affairs, Boston University.

Mr. CHARLES WOODMAN, Planning Officer, Boston University.

MR. JOHN HOBAN, Director of Buildings and Grounds, Boston University.

MR. ROBERT MINTON, former director of University Relations, Boston University.

DR. STEPHEN TRACTENBERG, Special Assistant to the President for Governmental Relations, Boston University.

MR. JAMES TRUE, formerly Special Assistant to the President for Governmental Relations, Boston University.

PROFESSOR MELVIN LEVIN, formerly of the Urban Institute, Boston University.

MR. DONALD BROWN, Boston Redevelopment Authority.

MR. LARRY KOFF, Boston Redevelopment Authority,

MR. JOSEPH SMITH, Action for Boston Community Development (formerly director of the Allston-Brighton Area Planning Action Council).

MR. RICHARD BOFFA, Brookline Planning Department.

MR. PETER HELWIG, Cambridge Planning Department.

MR. JOSEPH LETTON, Cambridge Community Development Department.

MR. DANIEL AHERN, Director, Back Bay Association.

MR. JAMES NESTOR, President, The Kenmore Committee.

MR. MICHAEL ROBBINS, President, Longwood Association (Brookline).

DR. CHESTER PERLMAN, President, Dexter Neighborhood Association (Brookline).

MRS. MARY COUGHLIN, President, Cambridgeport Residents Union.

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Appendix C: Bibliography

There has been considerable interest in recent years in the subject of university-community relations. However, efforts to define connections between conflict and campus form are quite limited. The most helpful in this study are listed below.

A. Baum, Martha; Jameson, Barbara and Shaw, Paul C.: University-Urban Interface Program: Phase II and III Interim Reports; University of Pittsburgh, 1971 and 1972.

This comprehensive project examines, among other issues, the impact of campus development on an adjacent community.

B. Blair, Lachlan, et.al.: College and Community: A Study of Interaction in Chicago; Department of Urban Planning. University of Illinois, January 1967.

This excellent study is the work of a class of graduate students in urban planning under the guidance of Professor Blair. The authors develop broad lists of social, economic, and physical means of interaction plus policy suggestions for improved relations between the university and the community. Although the study does not focus on the influence of campus form, it provides a valuable aid in selecting university characteristics which are likely correlates of conflict.

C. Educational Facilities Laboratories, Inc.,: A College in The City: An Alternative; 1969.

In this study, directed by Dr. William Birenbaum, President of Staten Island Community College in New York, a dramatic proposal was made for a college distributed throughout the Bedford-Stuyvesant district of Brooklyn. The project is based on the belief that a university "without walls" becomes a part of the lives of all who reside in the community.

D. Fink, Ira Stephen and Cooke, Joan: Campus-Community Relationships: An Annotated Bibliography; Society for College and University Planning, 1971.

A thorough job which should be the starting point for anyone interested in university-community relations.

E. Knox, Naphtali: "Interweaving Institution and Neighborhood," Community: A Report of a Conference on Living and Learning in the University of Minnesota Community; Department of Conferences and Institutes, University of Minnesota, 1967.

A description of the efforts of the University of Chicago to maintain an adjacent residential district as a stable community attractive to university people. It's efforts to disperse university owned housing throughout the district are also discussed.

F. Kriesberg, Louis: "Neighborhood Setting and the Isolation of Public Housing Tenants," American Institute of Planners Journal, January 1968.

Although this article does not deal with universities, the author has employed a technique similar to that proposed in this study. He compares several public housing projects and their surrounding areas to ascertain whether the form of the project affects the tenants' isolation from the community.

G. Parsons, Kermit C. and Davis, Georgia K.: "The Urban University and its Urban Environment" in Minerva, July 1971.

An evaluation of the experiences of several universities in district renewal. A useful form typology is employed.

H. Ward, Richard F. and Theodore E. Kurz.: The Commuting Student: A Study of Facilities at Wayne State University; Wayne State University, 1969.

Like the study by Birenbaum, this report details proposals: in this case for restructuring a major campus to better serve commuting students. The proposals include two approaches to campus-community integration. They too are helpful in selecting campus types.

In addition to the work listed above, the authors' correspondence with Professor Kermit C. Parsons of Cornell has been especially valuable. In the early sixties Professor Parsons was one of the very first to study campus-community problems. His articles and bibliographies set the scene for much later work. He has supported this project and offered valuable comments.

Of the other material so far published in this area, most either describes general problems or makes broad calls for new directions in urban university problems. The most relevant of these are listed below.

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